CHAPTER 4

Obsessive–Compulsive Disorder

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It will not take the reader long to see that successful therapy for obsessive–compulsive disorder (OCD) is markedly different in both structure and content from the usual therapeutic approaches. For this reason, regrettably, few therapists feel self-efficacious enough to undertake this therapy, yet this approach is clearly the treatment of choice for the most beneficial short- and long-term effects in OCD according to clinical trials. The information provided in this detailed chapter should be sufficient for any reasonably well-trained mental health professional to undertake this treatment, particularly if few other options are available. The suffering involved with OCD can be extraordinary, and even imperfect attempts at therapy can relieve much of this suffering. This chapter describes the detailed conduct of intensive daily sessions involving both imaginal and direct ***in vivo*** practice. Also noticeable is the ingenuity required of therapists (e.g., "Where do you find dead animals?"). The importance of involving significant others continues a theme first described by Craske, Wolitzky-Taylor, and Barlow in Chapter 1 of this volume, in which spouses/partners or other people close to the individual with the problem become an important and integral part of treatment. Finally, this chapter contains an up-to-date review of the current status of psychological and pharmacological approaches to OCD.

—D. H. B.

Advances in cognitive-behavioral and pharmacological treatments in the last four decades have improved the prognosis for patients with obsessive–compulsive disorder (OCD). In this chapter we first discuss diagnostic and theoretical issues of OCD and review the available treatments, then describe assessment procedures and illustrate in detail how to implement intensive cognitive-behavioral treatment (CBT) involving exposure and ritual prevention (EX/RP) for OCD. Throughout the chapter, we use case material to illustrate interactions that occur between therapist and patient to demonstrate the process that occurs during treatment.

DEFINITION

According to the 11th edition of the *International Classification of Diseases* (ICD-11; World Health Organization, 2021), OCD is characterized by recurrent obsessions and/or compulsions that interfere substantially with daily functioning (Stein et al., 2016). Common obsessions are repeated thoughts about causing harm to others, contamination, and doubting whether one locked the front door. Common compulsions include handwashing, checking, and counting. OCD is categorized among obsessive–compulsive and related disorders (e.g., Stein et al., 2010, 2016), which highlight

the formal and functional similarity between OCD and several other disorders that involve intense anxiety and associated compulsions (e.g., body dysmorphic disorder [BDD]), as well as those involving repetitive behaviors that appear to be driven by appetitive urges (e.g., trichotillomania [hair pulling], excoriation [skin picking] disorder; Stein et al., 2016).

The functional link between obsessions and compulsions is emphasized: *Obsessions* are defined as thoughts, images, or impulses that *cause* marked anxiety or distress, and *compulsions* are defined as overt (behavioral) or covert (mental) actions that are performed in an attempt to *reduce* the distress brought on by obsessions or according to rigid rules. This modification was supported by findings from a large field trial on OCD, in which over 90% of participants reported that the aim of their compulsions was either to prevent harm associated with their obsessions or to reduce obsessional distress (Foa et al., 1995).

Data from that same large field study also indicated that the vast majority (over 90%) of individuals with OCD manifest both obsessions and behavioral rituals. When mental rituals are also included, only 2% of the sample report "pure" obsessions (Foa et al., 1995). Behavioral rituals (e.g., handwashing) are equivalent to mental rituals (e.g., silently repeating special prayers) in their functional relationship to obsessions: Both serve to reduce obsessional distress, to prevent feared harm, or to restore safety. Thus, whereas all obsessions are indeed mental events, compulsions can be either mental or behavioral. Identification of mental rituals is an especially important aspect of treatment planning, because obsessions and compulsions are addressed via different techniques. For example, we once treated a patient who described himself as a "pure obsessional," who would experience intrusive and unwanted images of harm coming to his girlfriend by an animal attack. The patient would quickly and intentionally insert his own image into the scene to become the victim of the animal mauling, thereby reducing his distress and, in his estimation, reducing the likelihood that some future harm would come to his girlfriend. The substitution of his own image into the scene constituted a mental ritual, and the success of imaginal exposure exercises required that the patient refrain from this form of compulsion.

Increased consensus about a continuum of insight in individuals with OCD (e.g., Foa et al., 1995; Insel & Akiskal, 1986) led to designation of a subtype of OCD "with poor insight" to include individuals who indeed have obsessions and compulsions but fail to recognize their senselessness (Stein et al., 2016), although clinicians had difficulty applying a three-level insight qualifier (*fair-to-good insight, poor insight, no insight*) to OCD case vignettes (Kogan et al., 2020). Individuals are classified as having good or fair insight, poor insight, or absent insight/delusional beliefs, reflecting an even greater recognition of a continuum of insight in OCD (Leckman et al., 2010). Clinically, it is important to evaluate the degree of insight prior to initiating CBT, because fixed belief about the consequences of refraining from compulsions and avoidance behaviors has been found to be associated with attenuated treatment outcome (e.g., Foa, Abramowitz, Franklin, & Kozak, 1999; Neziroglu, Stevens, Yaryura-Tobias, & McKay, 2000; Visser et al., 2017).

To be diagnosed with OCD, obsessions and/or compulsions must be found to be of sufficient severity to cause marked distress, be time-consuming, and interfere with daily functioning. If another Axis I disorder is present, the obsessions and compulsions cannot be restricted to the content of that disorder (e.g., preoccupation with food in the presence of eating disorders).

PREVALENCE AND COURSE

Once thought to be an extremely rare disorder, the 12-month prevalence of OCD was estimated at 1.0% in the National Comorbidity Survey Replication involving over 9,000 adult participants in the United States (Kessler et al., 2005). Epidemiological studies with children and adolescents suggest similar lifetime prevalence rates in these samples (e.g., Dalsgaard et al., 2020; Flament et al., 1988; Valleni-Basille et al., 1994). Slightly more than half of adults suffering from OCD are female (Rasmussen & Tsuang, 1986), whereas a 2:1 male to female ratio has been observed in several pediatric clinical samples (e.g., Hanna, 1995; Swedo, Rapoport, Leonard, Lenane, & Cheslow, 1989). Age of onset typically ranges from early adolescence to young adulthood, with earlier onset in males; modal onset is ages 13–15 in males, and ages 20–24 in females (Rasmussen & Eisen, 1990). However, cases of OCD have been documented in children as young as age 2 (Rapoport, Swedo, & Leonard, 1992).

Development of the disorder is usually gradual, but acute onset has been reported in some cases. Although chronic waxing and waning of symptoms are typical,

episodic and deteriorating courses have been observed in about 10% of patients (Rasmussen & Eisen, 1989). In some cases of pediatric OCD and tic disorders, onset is very sudden and associated with streptococcal infection; treatment of the infection is associated with substantial reduction of symptoms, but recurrence of infection is again associated with symptom exacerbation (Swedo et al., 1998). Presentation of OCD in these cases, which is much more typical in males than in females, came to be known as "pediatric autoimmune neuropsychiatric disorders associated with streptococcal infection" (PANDAS) and has more recently been revised and broadened under the umbrella term "pediatric autoimmune neuropsychiatric syndrome" (PANS; Swedo, Leckman, & Rose, 2012); the prevalence of PANDAS or PANS has yet to be determined. OCD is frequently associated with impairments in general functioning, such as disruption of gainful employment (Koran, 2000; Leon, Portera, & Weissman, 1995; Torres et al., 2006) and interpersonal relationship difficulties (Emmelkamp, de Haan, & Hoogduin, 1990; Riggs, Hiss, & Foa, 1992; Torres et al., 2006). Adolescents identified as having OCD (Flament et al., 1988) reported in a subsequent follow-up study that they had withdrawn socially to prevent contamination and to conserve energy for obsessive–compulsive behaviors (Flament et al., 1990). Many individuals with OCD suffer for years before seeking treatment (e.g., García-Soriano, Rufer, Delsignore, & Weidt, 2014). In one study, individuals first presented for psychiatric treatment over 7 years after the onset of significant symptoms (Rasmussen & Tsuang, 1986). The disorder may cause severe impairment in functioning that results in job loss and disruption of marital and other interpersonal relationships. Marital distress is reported by approximately 50% of married individuals seeking treatment for OCD (Emmelkamp et al., 1990; Riggs et al., 1992).

COMORBIDITY

Convergent epidemiological and clinical data indicate that OCD rarely occurs in isolation: Although the rates of comorbidity differ across studies due to selection of population and methodology, comorbidity is generally high. For example, Weissman and colleagues (1994) found that 49% of individuals diagnosed with OCD suffered from a comorbid anxiety disorder and 27% from comorbid major depressive disorder (MDD). Among studies conducted specifically within anxiety clinics, there is great variability, but comorbid conditions are generally common (for a review, see Ledley, Pai, & Franklin, 2007). In the largest of the studies conducted in the context of an anxiety clinic, Brown, Campbell, Lehman, Grisham, and Mancill (2001) found that 57% of 77 adults with a principal diagnosis of OCD had a current comorbid Axis I condition; the rate rose to 86% for lifetime comorbid Axis I conditions. Notably, when OCD co-occurs with other anxiety disorders, it is typically the principal diagnosis (e.g., the diagnosis of greatest severity; see Antony, Downie, & Swinson, 1998). It also appears to be the case that MDD onset tends to follow that of OCD, suggesting that depression might be a response to OCD symptoms (Bellodi, Sciuto, Diaferia, Ronchi, & Smeraldi, 1992; Diniz et al., 2004).

The data are equivocal with respect to the influence of comorbidity on OCD presentation. In one study, Denys, Tenney, van Megen, de Geus, and Westenberg (2004) found that comorbidity did not influence OCD symptom severity, whereas others (Angst, 1993; Tukel, Polat, Ozdemir, Aksut, & Turksov, 2002) found a relationship between comorbidity and OCD symptom severity. A more consistent finding is that comorbidity is associated with poorer quality of life, particularly in the case of comorbid depression (Lochner & Stein, 2003; Masellis, Rector, & Richter, 2003).

With respect to the effect of comorbid anxiety and depression on treatment outcome, the influence of depression has received more empirical attention to date. Some studies have found that higher levels of depression at pretreatment are related to poorer outcome (e.g., Keijsers, Hoogduin, & Schaap, 1994; Steketee, Chambless, & Tran, 2001), whereas others have found little or no effect (Mataix-Cols, Marks, Greist, Kobak, & Baer, 2002; O'Sullivan, Noshirvani, Marks, Monteiro, & Lelliott, 1991; Steketee, Eisen, Dyck, Warshaw, & Rasmussen, 1999). Some have suggested that, more specifically, the *severity* of the comorbid depression might influence its effects on OCD treatment outcome: Abramowitz, Franklin, Street, Kozak, and Foa (2000) found that only severely depressed patients were less likely to respond to EX/RP therapy for OCD. Similarly, highly depressed patients with OCD seem to be at greater risk for relapse following treatment discontinuation (Abramowitz & Foa, 2000; Basoglu, Lax, Kasvikis, & Marks, 1988). The influence of comorbid anxiety disorders on outcome has received less attention

thus far: One study reported that patients with OCD and comorbid generalized anxiety disorder (GAD) terminate OCD treatment at higher rates than other patients (Steketee et al., 2001), and another found that the presence of posttraumatic stress disorder (PTSD) in patients with OCD attenuated response to EX/RP (Gershuny, Baer, Jenike, Minichiello, & Wilhelm, 2002). Within pediatric OCD specifically, comorbidity other than a second anxiety disorder (e.g., externalizing disorder, mood disorder) was associated with poorer acute response to CBT (Storch et al., 2008), and another report indicated that comorbid attention-deficit/hyperactivity disorder (ADHD) specifically attenuated CBT outcomes at follow-up among children and adolescents (Farrell, Waters, Milliner, & Ollendick, 2012). Notably, the mechanisms by which these comorbid conditions influence outcome have yet to be explored.

Tourette syndrome and other tic disorders also appear to be related to OCD, although not sufficiently to be grouped within obsessive–compulsive and related disorders (Stein et al., 2016). Estimates of the comorbidity of Tourette syndrome and OCD range from 28 to 63% (Comings, 1990; Kurlan et al., 2002; Leckman & Chittenden, 1990; Pauls, Towbin, Leckman, Zahner, & Cohen, 1986). Conversely, up to 17% of patients with OCD are thought to have Tourette syndrome (Comings, 1990; Kurlan et al., 2002; Rasmussen & Eisen, 1989). The relationship between tic comorbidity and treatment outcome are complex: in one study the presence of tics was associated with poorer treatment outcome (Matsunaga et al., 2005) while in another trial, tic comorbidity decreased pharmacotherapy treatment outcome but not outcome of CBT (March et al., 2007). In a more recent trial of CBT augmentation in youth on an SRI, tic status did not predict outcome to any treatment (Conelea et al., 2014); tics also did not predict outcome to CBT alone in a large trial of youth with OCD who were not receiving any SRIs (Højgaard et al., 2017).

DIFFERENTIAL DIAGNOSIS

The high comorbidity of OCD with other disorders noted earlier, as well as the similarity between the criteria for OCD and other psychiatric disorders, can pose diagnostic quandaries. Below we review some of the more common diagnostic difficulties likely to confront clinicians and provide recommendations for making these difficult diagnostic judgments.

Obsessions versus Depressive Rumination

It is sometimes difficult to differentiate between depressive ruminations and obsessions. The distinction rests primarily on thought content and the patient's reported resistance to such thoughts. Unlike obsessions, *ruminations* are typically pessimistic ideas about the self or the world, and ruminative content frequently shifts. Additionally, depressive ruminators tend to not make repeated attempts to suppress their ruminations the way individuals with OCD try to suppress obsessions. When depression and OCD co-occur, both phenomena may be present, but only obsessions should be targeted with exposure exercises. We have also found clinically that the generally pessimistic presentation of depressed patients can undermine hopefulness about improvement during EX/RP; thus, these beliefs may require therapeutic intervention even though they are not obsessional.

Anxiety Disorders

OCD has been classified previously as an anxiety disorder, and it often co-occurs with anxiety disorders. Diagnostic criteria are sometimes similar among these related (anxiety) disorders, but the symptoms associated with each diagnosis can usually be distinguished. For example, the excessive worries characteristic of GAD may appear similar to those in OCD but, unlike obsessions, worries are excessive concerns about real-life circumstances and are experienced by the individual as appropriate (ego-syntonic). In contrast, obsessive thinking is more likely to be unrealistic or magical, and obsessions are usually experienced by the individual as inappropriate (ego-dystonic). There are, however, exceptions to this general rule: Individuals with either GAD or OCD may worry about everyday matters, such as their children getting sick. However, when worried about their children catching cold, parents with GAD might focus their concern on the long-term consequences (e.g., falling behind in school, development of a lifelong pattern of debilitation), whereas parents with OCD might focus more on the contamination aspect of illness (e.g., their child being infested with "cold germs"). The problem of distinguishing between obsessions and worries in a particular patient is most relevant when the patient exhibits no compulsions, but, as we mentioned earlier, pure obsessionals comprise only about 2% of individuals with OCD (Foa et al., 1995).

In the absence of rituals, the avoidance associated with specific phobias may also appear similar to OCD. For example, excessive fear of germs and specific phobia both may result in persistent fear of dogs. However, unlike an individual with OCD, a person with a specific phobia can successfully avoid dogs for the most part, or reduce distress quickly by escaping dogs when avoidance is impractical. In contrast, the individual with OCD who is obsessed with "dog germs" continues to feel contaminated even after the dog is gone, and sometimes knowing that a dog was in the vicinity several hours earlier can also produce obsessional distress even if there is no possibility that the dog will return. This distress often prompts subsequent avoidance behaviors (e.g., taking off clothing that might have been near the contaminating dog) not typically observed in specific phobias.

Body Dysmorphic Disorder

The preoccupation with imagined physical defects of BDD is formally similar to the obsessions of OCD, and BDD is grouped with obsessive–compulsive and related disorders. The best way to differentiate between this disorder and OCD is to examine for content specificity of the fear-provoking thoughts. Most individuals with BDD are singly obsessed, whereas most individuals with OCD have multiple obsessions.

Tourette Syndrome and Tic Disorders

To differentiate the stereotyped motor behaviors that characterize Tourette syndrome and tic disorders from compulsions, the functional relationship between these behaviors and any obsessive thoughts must be examined. Motor tics are generally experienced as involuntary and are not aimed at neutralizing distress brought about by obsessions. There is no conventional way to differentiate them from "pure" compulsions, but OCD with "pure" compulsions is extremely rare (Foa et al., 1995). As we noted earlier, there appears to be a high rate of comorbidity between OCD and tic disorders (e.g., Pauls et al., 1986); thus, both disorders may be present simultaneously in a given patient. Interestingly, tics were similarly responsive to an EX/RP protocol when compared in a randomized study to habit-reversal training in which a competing response is substituted for the tic; this finding suggests that the conceptual model underlying the treatment of tics might require modification (Verdellen, Keijsers, Cath, & Hoogduin, 2004).

Delusional Disorder and Schizophrenia

Individuals with OCD may present with obsessions of delusional intensity (for a review, see Kozak & Foa, 1994). Approximately 5% of patients with OCD report complete conviction that their obsessions and compulsions are realistic, with an additional 20% reporting strong but not fixed conviction. Therefore, it is important to consider the diagnosis of OCD "with poor insight" even if these beliefs are very strongly held. The differentiation between delusional disorder and OCD can depend on the presence of compulsions in OCD (Eisen et al., 1998). In OCD, obsessions of delusional intensity are usually accompanied by compulsions.

It is also important to recognize that the content of obsessions in OCD may be quite bizarre, as in the delusions of schizophrenia, but bizarreness in and of itself does not preclude a diagnosis of OCD. For example, one patient seen at our center was fearful that small bits of her "essence" would be forever lost if she passed too close to public trash cans. This patient did not report any other symptoms of formal thought disorder, such as loose associations, hallucinations, flat or grossly inappropriate affect, and thought insertion or projection. Following a course of EX/RP that focused on exercises designed to expose the patient to the loss of her "essence" (e.g., driving by the city dump), her OCD symptoms were substantially reduced. On occasion patients do meet diagnostic criteria for both OCD and schizophrenia, and a dual diagnosis is appropriate under these circumstances. Importantly, EX/RP with such patients should proceed only if the associated treatment exercises do not exacerbate the comorbid thought disorder symptoms.

COGNITIVE AND BEHAVIORAL MODELS

Mowrer's (1939) two-stage theory for the acquisition and maintenance of fear and avoidance behavior has been commonly adopted to explain phobias and OCD. As elaborated by Mowrer (1960), this theory proposes that in the first stage, a neutral event becomes associated with fear by being paired with a stimulus that by its nature provokes discomfort or anxiety. Through conditioning processes, objects, as well as thoughts and images, acquire the ability to produce discomfort. In the second stage of this process, escape or avoidance responses are developed to reduce the anxiety or discomfort evoked by the various conditioned stimuli and

are maintained by their success in doing so. Dollard and Miller (1950) adopted Mowrer's two-stage theory to explain the development of phobias and obsessive–compulsive neurosis. As noted earlier, because of the intrusive nature of obsessions, many situations that provoke obsessions cannot readily be avoided. Passive avoidance behaviors, such as those utilized by phobics, are also less effective in controlling obsessional distress. Active avoidance patterns in the form of ritualistic behaviors are then developed and maintained by their success in alleviating this distress.

In light of equivocal empirical support for the two-stage theory and its limitations, Rescorla (1982) proposed a model of learning theory that emphasizes change in expectations as the mechanism of change in conditioning and extinction. Influenced by their theory, Foa, Yadin, and Lichner (2012) adopted emotional processing theory (Foa & Kozak, 1986) to explain the mechanism of exposure and response prevention, suggested that disconfirmation of beliefs underlies the effects of this treatment (i.e., patients learn that the negative outcome they expected from being exposed to their fear situation did not materialize).

Another explanation was offered by Salkovskis's (1985) cognitive analysis of OCD. He posited that intrusive obsessional thoughts are stimuli that may provoke certain types of negative automatic thoughts. Accordingly, an intrusive thought leads to mood disturbances only if it triggers negative automatic thoughts through interaction between the unacceptable intrusion and the individual's belief system (e.g., only bad people have sexual thoughts). According to Salkovskis, exaggerated senses of responsibility and self-blame are the central themes in the belief system of a person with OCD. Neutralization, in the form of behavioral or cognitive compulsions, may be understood as an attempt to reduce this sense of responsibility and to prevent blame. In addition, frequently occurring thoughts regarding unacceptable actions may be perceived by the individual with OCD as equivalent to the actions themselves, so, for example, even if the person has not sinned, the thought of sinning is as bad as sinning itself.

Salkovskis (1985) further proposed that five dysfunctional assumptions characterize individuals with OCD and differentiate them from persons without OCD:

> (1) Having a thought about an action is like performing the action; (2) failing to prevent (or failing to try to prevent) harm to self or others is the same as having caused the harm in the first place; (3) responsibility is not attenuated by other factors (e.g., low probability of occurrence); (4) not neutralizing when an intrusion has occurred is similar or equivalent to seeking or wanting the harm involved in that intrusion to actually happen; (5) one should (and can) exercise control over one's thoughts. (p. 579)

Thus, while the obsession may be ego-dystonic, the automatic thought it elicits will be ego-syntonic. By extension, this model suggests that treatment of OCD should largely focus on identifying the erroneous assumptions and modifying the automatic thoughts. This theory paved the way for various elaborations on the cognitive models, experimental studies of the model, and the development of cognitive therapies that derive from the central role of these key cognitive factors.

Salkovskis's (1985) theory sparked examination of the role of responsibility in the psychopathology of OCD (Ladoucer et al., 1995; Rachman, Thordarson, Shafran, & Woody, 1995; Rhéaume, Freeston, Dugas, Letarte, & Ladoucer, 1995). Further attention has been paid to what Rachman (1998) referred to as *thought–action fusion* (TAF), wherein individuals believe that simply having an unacceptable thought increases the likelihood of the occurrence of a feared outcome, and that thoughts of engaging in repugnant activities are equivalent to actually having done so. Contemporary cognitive theorists would then suggest that obsessive–compulsive beliefs such as TAF, exaggerated responsibility, and intolerance of uncertainty likely result in increased and ultimately futile efforts at thought suppression and other ill-advised mental control strategies, which would then yield increased frequency of such thoughts and associated distress (Purdon & Clark, 2002). Hence, a vicious cycle of avoidance maintains and strengthens the OCD, and the cognitive therapies that derive from these contemporary models would directly target these obsessive–compulsive beliefs in an effort to break the cycle.

In an integrated cognitive-behavioral account, Foa and Kozak (1985, 1986) conceptualized anxiety disorders in general as specific impairments in emotional memory networks. Following Lang (1979), they view fear as an information network existing in memory that includes representation about fear stimuli, fear responses, and their meaning. With regard to the fear content, Foa and Kozak (1986) suggested that fear networks of individuals with anxiety disorders are characterized by the presence of erroneous estimates of threat, unusually high negative valence for the feared event, and excessive response elements (e.g., physiological reactiv-

ity), and are resistant to modification. This persistence may reflect failure to access the fear network because of either active avoidance or the content of the fear network precludes spontaneous encounters with situations that evoke anxiety in everyday life. Additionally, anxiety may persist because of some impairment in the mechanism of extinction. Cognitive defenses, excessive arousal with failure to habituate, faulty premises, and erroneous rules of inference are all impairments that would hinder the processing of information necessary for modifying the fear structure to reduce fear behavior.

Foa and Kozak (1985) suggested that several forms of fear occur in individuals with OCD. The patient who fears contracting venereal disease from public bathrooms and washes to prevent such harm has a fear structure that includes excessive associations between the stimuli (e.g., bathrooms) and the anxiety/distress responses, as well as mistaken beliefs about the harm related to the stimulus. For other individuals with OCD, fear responses are associated with mistaken meaning rather than with a particular stimulus. For example, some patients who are disturbed by perceived asymmetry, and who reduce their distress by rearranging objects, do not fear the objects themselves, nor do they anticipate disaster from the asymmetry. Rather, they are upset by their view that certain arrangements of stimuli are "improper."

Like Reed (1985), Foa and Kozak (1985) proposed that in addition to the pathological content of the obsessions, OCD is distinguished from other disorders by pathology in the mechanisms underlying information processing. Specifically, they suggested that patients with OCD experience impairments in taking into account the rules for making inferences about harm, often concluding that a situation is dangerous based on the absence of evidence for safety, and that they often fail to make inductive leaps about safety from information about the absence of danger. Consequently, rituals performed to reduce the likelihood of harm can never provide safety and must be repeated. In an elaboration on emotional processing theory and the mechanism by which exposure works, Foa, Huppert, and Cahill (2006) suggested that *in vivo* exposure to the feared stimulus in the absence of the anticipated harm corrects the exaggerated probability estimates; imaginal exposure not only corrects the exaggerated cost but also strengthens the discrimination between "thoughts about harm" and "real harm," thus altering the associations between threat meaning of stimulus and/or response elements in the fear structure.

Animal models of fear conditioning and extinction (see Bouton, 1993) have suggested that the original conditioned stimulus–unconditioned stimulus (CS-US) association learned during fear conditioning is not erased during an extinction procedure, but rather rendered ambiguous as new information is learned when the CS no longer predicts the US. This process means that the CS now has two meanings: the original excitatory meaning, plus an additional inhibitory one (Craske, Treanor, Conway, Zbozinek, & Vervliet, 2014). With respect to application in humans, Craske and colleagues have posited that anxious individuals show deficits in the mechanisms thought to be central to extinction learning; accordingly, there is great clinical value in optimizing inhibitory learning during exposure therapy to maximize treatment outcomes. One such strategy involves overtly setting up exposures as tests of patient expectancies so as to provide maximal opportunity for violation of said expectancies. In order to do so, it is important to shift language away from whether a patient is habituating, focusing instead on whether he/she is learning that his/her expectations of negative outcome do not occur. In addition, the application of an inhibitory learning model in treatment would include emphasizing the importance of decontextualizing inhibitory associations, as well as helping the patient develop distress tolerance (Blakey & Abramowitz, 2016). Experimental tests of the relative efficacy of this approach to conducting exposure versus other approaches (e.g., models that emphasize within-session habituation) have yet to be undertaken specifically with patients with clinical OCD. It will also be important to determine whether patients with OCD with explicit feared consequences (e.g., "I will kill my baby if I do not ritualize in response to thoughts of harming her") fare better using the inhibitory learning model when compared to those whose urges to ritualize are driven more by disgust or by "not just right" experiences without fear related to specific external consequences.

TREATMENTS

Exposure and Ritual Prevention

The prognostic picture for OCD has improved dramatically since Victor Meyer (1966) first reported on two patients who responded well to a treatment that included prolonged exposure to obsessional cues and strict prevention of rituals. This procedure, known at the time as "exposure and ritual prevention" (EX/RP),

was later found to be extremely successful in 10 of 15 cases and partly effective in the remainder. Patients treated with this regimen also appeared to maintain their treatment gains: At a 5-year follow-up, only two of these patients had relapsed (Meyer & Levy, 1973; Meyer, Levy, & Schnurer, 1974).

As was the case with Meyer's program, current EX/RP treatments typically include both prolonged exposure to obsessional cues and procedures aimed at blocking rituals. Exposure exercises are often done in real-life settings (*in vivo*), for example, by asking the patient who fears accidentally causing a house fire by leaving the stove on, to leave the house without checking the burners. When patients report specific feared consequences of refraining from rituals, these fears may also be addressed via imaginal exposure. In fact, *in vivo* and imaginal exposure exercises are designed specifically to prompt obsessional distress. It is believed that repeated, prolonged exposure to feared thoughts and situations provides information that disconfirms mistaken associations and evaluations held by the patients and thereby promotes habituation (Foa & Kozak, 1986). Exposure is usually done gradually by confronting situations that provoke moderate distress before confronting more upsetting ones. Exposure homework is routinely assigned between sessions, and patients are also asked to refrain from rituals.

Since Meyer's (1966) initial positive report of the efficacy of EX/RP, many subsequent studies of EX/RP have indicated that most EX/RP treatment completers make and maintain clinically significant gains. Randomized controlled trials (RCTs) have indicated that EX/RP is superior to a variety of control treatments, including placebo medication (Marks, Stern, Mawson, Cobb, & McDonald, 1980; Foa et al., 2005), relaxation (Fals-Stewart, Marks, & Schafer, 1993; Simpson et al., 2008), and anxiety management training (Lindsay, Crino, & Andrews, 1997). Recent meta-analytic findings examining randomized trials clearly support the efficacy of CBT for both adult (Öst, Havnen, Hansen, & Kvale, 2015) and pediatric OCD (Öst, Riise, Wergeland, Hansen, & Kvale, 2016). Moreover, several studies have now indicated that these encouraging findings for EX/RP are not limited to highly selected RCT samples (Franklin, Abramowitz, Kozak, Levitt, & Foa, 2000; Kay, Eken, Jacobi, Riemann, & Storch, 2016, Rothbaum & Shahar, 2000; Valderhaug, Larsson, Gotestam, & Piacentini, 2007; Warren & Thomas, 2001).

In general, EX/RP has been found quite effective in ameliorating OCD symptoms and has produced great durability of gains following treatment discontinuation. In our review of the literature, it also was apparent that among the many variants of EX/RP treatment, some are relevant for outcome and others are not. We review the literature on the relative efficacy of the elements that comprise EX/RP to help clinicians decide which EX/RP components are most essential.

EX/RP Treatment Variables

EXPOSURE VERSUS RITUAL PREVENTION VERSUS EX/RP

To separate the effects of EX/RP on OCD symptoms, Foa, Steketee, Grayson, Turner, and Latimer (1984) randomly assigned patients with washing rituals to treatment by exposure only (EX), ritual prevention only (RP), or their combination (EX/RP). Each treatment was conducted intensively (15 daily 2-hour sessions conducted over 3 weeks) and followed by a home visit. Patients in each condition were found to be improved at both posttreatment and follow-up, but EX/RP was superior to the single-component treatments on almost every symptom measure at both assessment points. In comparing EX and RP, patients who received EX reported lower anxiety when confronting feared contaminants than did patients who had received RP, whereas the RP group reported greater decreases in urge to ritualize than did the EX patients. Thus, it appears that EX and RP affected different OCD symptoms. The findings from this study clearly suggest that EX and RP should be implemented concurrently; treatments that do not include both components yield inferior outcome. It is important to convey this information to patients, especially when they are experiencing difficulty either refraining from rituals or engaging effectively in exposure exercises during and between sessions.

IMPLEMENTATION OF RITUAL PREVENTION

Promoting abstinence from rituals during treatment is thought to be essential for successful treatment outcome, but the preferred method of RP has changed over the years. In Meyer's (1966) EX/RP treatment program, hospital staff members physically prevented patients from performing rituals (e.g., turning off the water supply in a patient's room). However, physical intervention by staff or family members to prevent patients from ritualizing is no longer typical or recommended. It is believed that such prevention techniques

are too coercive to be an accepted practice today. Moreover, physical prevention by others may actually limit generalizability to nontherapy situations in which others are not present to intercede. Instead, instructions and encouragement to refrain from ritualizing and avoidance are now recommended. As noted earlier, although exposure itself can reduce obsessional distress, it is not so effective in reducing compulsions. To maximize treatment effects, the patient needs to refrain voluntarily from ritualizing, while engaging in systematic exposure exercises. The therapist should strongly emphasize the importance of refraining from rituals and help the patient with this difficult task by providing support, encouragement, and suggestions about alternatives to ritualizing.

USE OF IMAGINAL EXPOSURE

Treatment involving imaginal plus *in vivo* EX/RP at follow-up was superior to an *in vivo* EX/RP program that did not include imaginal exposure (Foa, Steketee, Turner, & Fischer, 1980; Steketee, Foa, & Grayson, 1982). However, a second study did not find that the addition of imaginal exposure enhanced long-term efficacy compared to *in vivo* exposure only (De Araujo, Ito, Marks, & Deale, 1995). The treatment program in the former study (Foa et al., 1980) differed from that of De Araujo and colleagues on several parameters (e.g., 90-minute vs. 30-minute imaginal exposures, respectively); thus, the source of these studies' inconsistencies cannot be identified.

In our clinical work, we have found imaginal exposure to be helpful for patients who report that disastrous consequences will result if they refrain from rituals. Because many of these consequences cannot be readily translated into *in vivo* exposure exercises (e.g., burning in hell), imaginal exposure allows the patient an opportunity to confront these feared thoughts. Also, the addition of imagery to *in vivo* exposure may circumvent the cognitive avoidance strategies used by patients who intentionally try not to consider the consequences of exposure while confronting feared situations *in vivo*. In summary, although imaginal exposure does not appear essential for immediate outcome, it may enhance long-term maintenance and be used as an adjunct to *in vivo* exercises for patients who fear disastrous consequences. For patients who only report extreme distress as a consequence of refraining from rituals and avoidance behaviors, imaginal exposure may not be needed.

GRADUAL VERSUS ABRUPT EXPOSURES

No differences in OCD symptom reduction were detected in a study comparing patients who confronted the most distressing situations from the start of therapy to those who confronted less distressing situations first, yet patients preferred the more gradual approach (Hodgson, Rachman, & Marks, 1972). However, because patient motivation and agreement with treatment goals are core elements of successful EX/RP, situations of moderate difficulty are usually confronted first, followed by several intermediate steps, before the most distressing exposures are attempted. Thus, we emphasize that exposure will proceed at a pace that is acceptable to the patient, and that no exposure will ever be attempted without the patient's approval. At the same time, it is preferable to confront the highest item on the treatment hierarchy relatively early in treatment (e.g., within the first week of intensive treatment) to allow sufficient time to repeat these difficult exposures over the later sessions.

DURATION OF EXPOSURE

Duration of exposure was once believed to be important for outcome in that prolonged, continuous exposure was found to be more effective than short, interrupted exposure (Rabavilas, Boulougouris, & Perissaki, 1979). Indeed, reduction in anxiety (habitation) across sessions has been associated with improvement following exposure-based treatments for OCD and for PTSD (e.g., Jaycox, Foa, & Morral, 1998; Kozak, Foa, & Steketee, 1988; van Minnen & Hagenaars, 2002). However, several studies have not found a strong relationship between within-session habituation and fear and symptom reduction (Jaycox et al., 1998; Kozak et al., 1988; Mathews, Johnston, Shaw, & Gelder, 1974; Rowe & Craske, 1998). In an elaboration on emotional processing theory, Foa and colleagues (2006) found that the recent deemphasis of the relationship between within-session habituation and outcome is not critical to emotional processing theory, because the proposed mechanism underlying symptom reduction is the modification of the relevant erroneous associations through disconfirming information, not through habituation per se. In practical terms, this means patients should be instructed that although, optimally, they should persist with exposure until the anxiety is substantially reduced, the more important factor is repeating the same exposures, to promote reduction of associated anxiety over time. Patients with OCD might be particularly vul-

nerable to fears of ending exposures "too soon," hence, doing the treatment incorrectly, so this new instruction might help encourage patients to go about their business without ritualizing or avoiding, regardless of whether anxiety still lingers on from an exposure task. The deemphasis of the critical importance of habituation in the moment is more pronounced procedurally when using acceptance and commitment therapy (e.g., Twohig et al., 2010), but, generally speaking, this viewpoint appears to be gaining acceptance among cognitive-behavioral therapists as well. For example, clinically we often remind patients that whether they are anxious is less relevant than what they do (or do not do) when they are anxious, since ritualizing and avoidance will maintain fear down the line.

FREQUENCY OF EXPOSURE SESSIONS

Optimal frequency of exposure sessions has yet to be established. Intensive exposure therapy programs that have achieved excellent results (e.g., Foa, Kozak, Steketee, & McCarthy, 1992) typically involve daily sessions over the course of approximately 1 month, but quite favorable outcomes have also been achieved with more widely spaced sessions (e.g., Abramowitz, Foa, & Franklin, 2003; De Araujo et al., 1995; Franklin et al., 1998). A recent RCT in pediatric OCD found no difference between intensive and weekly treatment (Storch et al., 2007). Clinically, we have found that less frequent sessions may be sufficient for highly motivated patients with mild to moderate OCD symptoms, who readily understand the importance of daily exposure homework. Patients with very severe symptoms, or those who for various reasons cannot readily comply with EX/RP tasks between sessions, are typically offered intensive treatment.

THERAPIST-ASSISTED VERSUS SELF-EXPOSURE

Evaluations of the presence of a therapist during exposure have yielded inconsistent results. In one study, patients with OCD receiving therapist-assisted exposure were more improved immediately posttreatment than those receiving clomipramine and self-exposure, but this difference was not evident at follow-up (Marks et al., 1988). However, these results are difficult to interpret in light of the study's complex design. A second study using patients with OCD also indicated that therapist-assisted treatment was not superior to self-exposure at posttreatment or at follow-up (Emmelkamp & van Kraanen, 1977), but the number of patients in each condition was too small to render these findings conclusive. In contrast to the negative findings of Marks and colleagues (1988) and Emmelkamp and van Kraanen (1977), therapist presence yielded superior outcome of a single, 3-hour exposure session compared to self-exposure for persons with specific phobia (Öst, 1989). Because specific phobias are, on the whole, less disabling and easier to treat than OCD, one may surmise that therapist presence should also influence treatment outcome with OCD. Moreover, using meta-analytic procedures, Abramowitz (1996) found that therapist-controlled exposure was associated with greater improvement in OCD and GAD symptoms compared to self-controlled procedures. Comparable outcomes were found for patients receiving EX/RP with therapist assistance and those who received teletherapy (Lovell et al., 2006), which further raises the question of whether therapist assistance is required for good outcome. In light of these inconsistent findings, no clear answer is available on the role of therapist assistance with exposure tasks in OCD treatment. However, we have found clinically that the presence of a therapist can be useful in helping patients to remain engaged in exposures while anxiety is high, to avoid subtle rituals or avoidance behaviors during exposure (e.g., distraction, mental rituals), and to remain sufficiently motivated despite distress. Researchers have begun to examine the question of whether telephone therapy or Skype would also be effective, including adapted CBT protocols for Tourette syndrome (Himle, Olufs, Himle, Tucker, & Woods, 2010) and OCD specifically (e.g., Bachofen et al., 1999; Comer et al., 2017); such research may provide greater confidence that these methods can be used efficaciously, which will help to address the ongoing problem of the paucity of OCD treatment expertise that plagues most communities.

EX/RP versus Other Treatment Approaches

In this section we review the literature on the efficacy of standard individual EX/RP treatment versus other therapeutic approaches, including group treatment, family-based EX/RP treatment, cognitive therapy, and pharmacotherapy.

INDIVIDUAL VERSUS GROUP EX/RP

Intensive individual EX/RP, although effective, can pose practical obstacles, such as high cost for treatment,

and scheduling problems for patient and therapist alike. Additionally, because experts in EX/RP treatment are few and far between, patients may need to wait for long periods or travel substantial distances to be treated. Thus, some researchers have begun to examine the efficacy of more affordable and efficient treatment modalities. One such alternative is group treatment. Fals-Stewart and colleagues (1993) conducted a controlled study in which patients with OCD were randomly assigned to individual EX/RP, group EX/RP, or a psychosocial control condition (relaxation). Each of the active treatments was 12 weeks long, with sessions held twice weekly, and included daily exposure homework. Significant improvement in OCD symptoms was evident in both active treatments, with no differences detected between individual and group EX/RP immediately posttreatment or at 6-month follow-up. Profile analysis of OCD symptom ratings collected throughout treatment did indicate a faster reduction in symptoms for patients receiving individual treatment. These results offer evidence for the efficacy of group treatment. However, because patients were excluded from this study if they were diagnosed with *any* personality disorder or with comorbid depression, it may be that the sample was somewhat atypical. In addition, none of the participants had received previous OCD treatment, which is also unusual for this population and suggestive of a less symptomatic sample. Thus, inferences about the broader OCD population merit caution until these results are replicated.

Barrett, Healy-Farrell, and March (2004) found that individual and group CBT were highly and similarly efficacious for children and adolescents with OCD relative to a wait-list control; this raises the possibility that group interventions might hold particular promise in the treatment of youth with OCD. Also in youth, Asbahr and colleagues (2005) found group CBT and sertraline comparable at posttreatment, but there was less relapse in the former condition. Another Australian research group found comparable outcomes for group treatment compared to individual treatment, both of which were superior to a wait-list control (Anderson & Rees, 2007); not surprisingly, though, individual treatment was associated with more rapid response.

FAMILY INVOLVEMENT VERSUS STANDARD EX/RP TREATMENT

Emmelkamp and colleagues (1990) examined whether family involvement in treatment would enhance the efficacy of EX/RP for OCD. Patients who were married or living with a romantic partner were randomly assigned to receive EX/RP either with or without partner involvement in treatment. Results indicated that OCD symptoms were significantly lowered following treatment for both groups. No differences between the treatments emerged, and initial marital distress did not predict outcome. However, the reduction in anxiety/distress reported for the sample as a whole was modest (33%), which may have resulted from the relatively short treatment sessions and absence of *in vivo* exposure exercises in treatment sessions.

Mehta (1990) also examined the effect of family involvement on EX/RP treatment outcome. To adapt the treatment to serve the large numbers of young unmarried people seeking OCD treatment and the "joint family system" prevalent in India, Mehta used a family-based rather than spouse-based treatment approach. Patients who did not respond to previous pharmacotherapy were randomly assigned to receive treatment by systematic desensitization and EX/RP, either with or without family assistance. Sessions in both conditions were held twice weekly for 12 weeks; response prevention was described as "gradual." In the family condition, a designated family member (parent, spouse, or adult child) assisted with homework assignments, supervised relaxation therapy, participated in response prevention, and was instructed to be supportive. On self-reported OCD symptoms, a greater improvement was found for the family-based intervention at posttreatment and at 6-month follow-up. Although this study had methodological problems that complicate interpretation of findings (e.g., use of self-report OCD measures only, unclear description of treatment procedures), it offers some preliminary evidence that family involvement may be helpful in OCD treatment. Clinically, we routinely enlist the support of family members in EX/RP, providing psychoeducation about the illness and its consequences during the early stages of treatment planning, and advice and encouragement in managing the patient's request for assurances, his/her avoidant behaviors, and violation of EX/RP rules between sessions. We also try to reduce family members' criticism of the patient and unconstructive arguing about OCD and related matters when these issues arise in the therapy.

Published randomized studies of CBT for OCD with youth have each included parents at least to some extent in treatment (Barrett et al., 2004; de Haan, Hoogduin, Buitelaar, & Keijsers, 1998; Pediatric OCD Treatment Study Team, 2004), and a direct comparison

of CBT, with and without a family component, using an otherwise identical protocol has yet to be conducted in pediatric OCD. Research on whether family involvement enhances individual CBT outcomes in other anxiety disorders has generally yielded mixed findings, however, and a large RCT indicated that both forms of treatment are efficacious and essentially equivalent to one another (Bogels & Bodden, 2005). Higher family dysfunction in general was associated with poorer long-term outcome in one study (Barrett, Farrell, Dadds, & Boulter, 2005), as was family accommodation of OCD rituals specifically (Peris et al., 2012), and at this point it might be clinically prudent to include a more comprehensive family component when family members are very directly involved in the patient's rituals (e.g., reassurance seeking) or when family psychopathology threatens generalizability of treatment gains to a chaotic home environment. It also may be that greater family involvement in treatment is needed when the patient is very young (Freeman et al., 2003, 2007, 2014).

EX/RP VERSUS COGNITIVE THERAPIES

Increased interest in cognitive therapy (e.g., Beck, 1976; Ellis, 1962), coupled with dissatisfaction with formulations of treatment mediated by processes such as extinction (Stampfl & Levis, 1967) or habituation (Watts, 1973), prompted examination of the efficacy of cognitive procedures for anxiety disorders in general and for OCD in particular. A number of early studies found few differences between standard behavioral treatments and behavioral treatments enhanced with various cognitive approaches (e.g., Emmelkamp & Beens, 1991; Emmelkamp, Visser, & Hoekstra, 1988). Recent advances in cognitive conceptualizations of OCD have apparently yielded more efficacious and durable cognitive treatments. Freeston and colleagues (1997) found a cognitive-behavioral intervention efficacious compared to a wait-list control group for patients with "pure" obsessions. Several other studies (Cottraux et al., 2001; McLean et al., 2001; Vogel, Stiles, & Götestam, 2004; Whittal, Thordarson, & McLean, 2005) have suggested equivalent results for CBT and EX/RP, respectively, although some procedural overlap between the two conditions in these studies makes their findings difficult to interpret. In concert with studies attesting to the utility of cognitively oriented approaches for conditions that are quite similar to OCD, such as hypochondriasis (Barsky & Ahern, 2004; Warwick, Clark, Cobb, & Salkovskis, 1996), it does appear that cognitive therapies hold promise for the treatment of OCD and might be an efficacious potential alternative to EX/RP (Öst et al., 2015). However, Whittal, Woody, McLean, Rachman, and Robichaud (2010) failed to find a difference between cognitive therapy and stress management training (SMT) for a sample with primary obsessions and mental rituals, although this appeared to be due to the fact that SMT yielded substantial and lasting benefit compared to pretreatment rather than because cognitive therapy did not.

The question of whether cognitive therapy improves the efficacy of EX/RP is generally difficult to discern, because both exposure therapy and cognitive therapy are intended to modify mistaken cognitions. An RCT that compared "pure" forms of CT or EX/RP, with or without medication, found similar, yet somewhat attenuated, outcomes relative to what might typically be expected from either treatment (van Balkom et al., 1998). Foa and Kozak (1986) argued that the disconfirmation of erroneous associations and beliefs is a crucial mechanism underlying the efficacy of exposure treatments, hence disputing discussions that mistaken cognitions from EX/RP might be expected to hamper outcome. For example, a patient and therapist sitting on the bathroom floor in a public restroom conducting an exposure to contaminated surfaces routinely discuss risk assessment, probability overestimation, and so forth, as the therapist helps the patient achieve the cognitive modification necessary for improvement. The practical issue of interest is how to maximize efficacy: Is informal discussion of cognitive distortions during the exposure exercises sufficient, or should the therapist engage in formal Socratic questioning of hypothesized distortions, such as inflated responsibility? Notably, in a meta-analytic review, cognitive therapies for OCD that included some form of exposure to feared stimuli were superior to those that did not, suggesting that exposure may be necessary to maximize outcomes (Abramowitz, Franklin, & Foa, 2002).

To expand on this point further, Hiss, Foa, and Kozak (1994) investigated whether formal relapse prevention techniques following intensive EX/RP enhanced maintenance of gains. Notably, all discussions about cognitive factors typically included during the core treatment (e.g., discussion of lapse vs. relapse, posttreatment exposure instructions, themes of guilt and personal responsibility, and feared consequences) were removed. Patients received this modified EX/RP, followed by either a relapse prevention treatment or a psychosocial control treatment (associative therapy). All

patients in both conditions were classified as *responders at posttreatment* (defined as 50% or greater reduction in OCD symptoms), with treatment gains better maintained in the relapse prevention group than in the associative therapy condition at 6-month follow-up. The percentages of responders at follow-up were 75% in the relapse prevention condition and 33% in associative therapy. The higher than usual observed relapse rate in the associative therapy condition may have resulted from the removal of cognitive techniques typically utilized during the core treatment, such as discussion of feared consequences. These findings, and those discussed earlier, further underscore our belief that blended treatment designed to provide patients the opportunity to disconfirm their erroneous cognitions makes the most sense clinically. Accordingly, our approach clearly incorporates informal cognitive procedures, and discussions of the outcome of exposures are geared toward challenging mistaken beliefs; this is accomplished in the context of a treatment approach that still emphasizes the importance of EX/RP in bringing about such changes.

Serotonergic Medications

Effectiveness of Medications

The use of serotonergic medications in the treatment of OCD has received a great deal of attention. Of the tricyclic antidepressants, clomipramine (CMI) has been studied most extensively. In controlled trials, CMI has consistently been found to be superior to placebo (e.g., DeVeaugh-Geiss, Landau, & Katz, 1989). Similar results have been obtained with the selective serotonin reuptake inhibitors (SSRIs) fluoxetine, fluvoxamine, and sertraline (see Öst et al., 2015). Accordingly, each of these medications has been approved by the U.S. Food and Drug Administration (FDA) as treatments for adult OCD. On the whole, these studies suggest that up to 60% of patients show some response to treatment with SSRIs. However, even the average treatment gain achieved by treatment responders is moderate at best (Greist, 1990). In addition, amelioration of obsessive–compulsive symptoms is maintained only as long as the drug is continued: For example, in an early controlled, double-blind discontinuation study, 90% of patients relapsed within a few weeks after being withdrawn from CMI (Pato, Zohar-Kadouch, Zohar, & Murphy, 1988). More recent discontinuation studies with slower taper periods have not yielded such dramatic results, but they nevertheless converge to suggest that maintenance treatment is necessary to sustain achievements attained with pharmacotherapy alone for OCD (Dougherty, Rauch, & Jenike, 2002).

EX/RP versus Pharmacotherapy

Many controlled studies have indicated that serotonergic antidepressants are superior to placebo in ameliorating OCD symptoms (for a review, see Greist, Jefferson, Kobak, Katzelnick, & Serlin, 1995). However, only a few controlled studies have directly compared the relative or combined efficacy of antidepressant medications and EX/RP, and several studies that have made such a comparison included complex designs that make it difficult to draw confident conclusions about relative and combined efficacy (e.g., Marks et al., 1980, 1988). Cottraux and colleagues (1990) compared fluvoxamine (FLV) with antiexposure instructions, FLV plus weekly EX/RP, and pill placebo (PBO) plus EX/RP, and found FLV + EX/RP and FLV + antiexposure instructions superior to PBO + EX/RP; there was a trend toward an advantage for combined treatment, but it failed to reach significance. Hohagen and colleagues (1998) compared EX/RP + FLV to EX/RP + PBO and found that both groups improved significantly and comparably on compulsions, but the patients who received EX/RP + FLV were significantly better at posttreatment on obsessions than those who received EX/RP + PBO. Subanalyses indicated that patients with secondary depression also fared better if they were receiving EX/RP + FLV.

The relative and combined efficacy of CMI and intensive EX/RP was examined in a multicenter, RCT conducted at our center (Penn) and at Columbia University. Findings with both treatment completer and intention-to-treat (ITT) data indicated at posttreatment that the active treatments were superior to placebo, EX/RP was superior to CMI, and the combination of the two treatments was not superior to EX/RP alone (Foa et al., 2005); relapse was more evident following treatment discontinuation in the CMI group than in either treatment that included intensive EX/RP (EX/RP, EX/RP + CMI; Simpson et al., 2004). However, the design used in the Penn–Columbia study may not have optimally promoted an additive effect for CMI, because the intensive portion of the EX/RP program was largely completed before patients reached their maximum dose of CMI. In addition, combined treatment effects may be more evident when intensive EX/RP is not used (Foa, Franklin, & Moser, 2002). Notably, an additive effect

for combined treatment was found in a study in pediatric OCD at Penn, Duke, and Brown (Pediatric OCD Treatment Study Team, 2004), although examination of effect sizes by site indicated that the CBT monotherapy effect at Penn was very large, and no additive effect for combined treatment was found at this site.

In summary, although there is clear evidence that both pharmaceutical treatment with serotonergic medications and EX/RP treatments are effective for OCD, information about their relative and combined efficacy remains scarce, because most of the studies that examined these issues have been methodologically limited. Nevertheless, no study has found clear, long-term superiority for combined pharmacotherapy plus EX/RP over EX/RP alone. The absence of conclusive findings notwithstanding, many experts continue to advocate combined procedures as the treatment of choice for OCD (e.g., Greist, 1992). In clinical practice, it is common to see patients in EX/RP treatment who are taking SSRIs concurrently. In uncontrolled examinations of EX/RP treatment outcome for adults (Franklin, Abramowitz, Bux, Zoellner, & Feeny, 2002) and youth (Franklin et al., 1998; Piacentini, Bergman, Jacobs, McCracken, & Kretchman, 2002) treated in OCD outpatient clinics, no posttreatment differences in OCD symptom severity were detected between patients who received EX/RP alone and those who received SSRI medication when receiving EX/RP. From these data we can surmise that concomitant pharmacotherapy is not required for every patient to benefit substantially from EX/RP, and that concomitant pharmacotherapy does not appear to inhibit EX/RP treatment response. With respect to EX/RP augmentation in SSRI partial responders, there is now evidence from randomized trials that EX/RP augmented treatment outcome compared to medication alone in youth (Franklin et al., 2011) and compared to stress management training in adults (Simpson et al., 2010). More definitive conclusions about the effects of augmenting pharmacotherapy with EX/RP await a more carefully controlled examination, however.

ASSESSMENT

Following a diagnostic interview to ascertain the presence of OCD, it is advisable to quantify the severity of the OCD symptoms with one or more of the instruments described below. Quantification of symptom severity assists the therapist in evaluating how successful treatment was for a given patient. In our clinic, we use several assessment instruments. As in most OCD clinical research studies, however, the primary measure of OCD symptom severity used in our center is the Yale–Brown Obsessive–Compulsive Scale (Y-BOCS; Goodman et al., 1989a, 1989b).

Yale–Brown Obsessive–Compulsive Scale

The Y-BOCS (Goodman et al., 1989a, 1989b), a standardized, semistructured interview, takes approximately 30 minutes to complete. The Y-BOCS Severity scale includes 10 items (five assess obsessions and five, compulsions), each of which is rated on a 5-point scale ranging from 0 (*No symptoms*) to 4 (*Severe symptoms*). Assessors rate the time occupied by the obsessions and compulsions, the degree of interference with functioning, the level of distress, attempts to resist the symptoms, and level of control over the symptoms. The Y-BOCS has shown adequate interrater agreement, internal consistency, and validity (Goodman et al., 1989a, 1989b). The Y-BOCS served as the primary measure of outcome in most of the published OCD pharmacotherapy and CBT treatment studies conducted during the 1990s.

Self-Report Measures

Obsessive–Compulsive Inventory—Revised

The Obsessive–Compulsive Inventory—Revised (OCI-R; Foa, Huppert, et al., 2002) is an 18-item, self-report measure that assesses the distress associated with obsessions and compulsions. In addition to the total score, six separate subscale scores are calculated by adding the three items that comprise each subscale: Washing, Checking, Ordering, Obsessing, Hoarding, and Neutralizing. Foa, Huppert, and colleagues reported good internal consistency, test–retest reliability, and discriminant validity in clinical patients with OCD, PTSD, generalized social phobia, and nonanxious controls. The total score ranges from 0 to 72, and each subscale ranges from 0 to 12.

Other Self-Report Measures

A few self-report instruments for assessing OCD symptoms, such as the Leyton Obsessional Inventory (Kazarian, Evans, & Lefave, 1977) and the Lynfield Obsessional/Compulsive Questionnaire (Allen & Tune, 1975), are also available. These instruments are limited in that they assess only certain forms of obsessive–

compulsive behavior and/or they include items that are unrelated to OCD symptoms. More recently, Storch and colleagues (2009) have developed the Children's Florida Obsessive–Compulsive Inventory, which is intended primarily for screening purposes.

INITIAL INTERVIEW

After a diagnosis of OCD has been established, and before actually beginning treatment, the therapist should schedule 4–6 hours of appointments with the patient. In these sessions, the therapist needs to accomplish three important tasks. First, the sessions are used to collect the information necessary to develop a treatment plan. Specifically, the therapist must first identify specific cues that cause the patient distress (threat cues), avoidance, rituals, and feared consequences. Second, the therapist should develop a good rapport with the patient, who will engage in exposure exercises designed to elicit anxiety and distress during intensive EX/RP; the lack of a good relationship between therapist and the patient may compromise outcome. Third, the therapist needs to explore the patient's beliefs about OCD and the perceived consequences of refraining from rituals and avoidance, because this information guides the informal discussions of cognitive processes that take place throughout EX/RP.

Threat cues may be either (1) tangible objects in the environment or (2) thoughts, images, or impulses that the person experiences (for lack of better terms, we have labeled them "external cues" and "internal cues," respectively). Passive avoidance and ritualistic behavior (sometimes called "active avoidance") both serve to reduce the distress associated with the threat cues. Rituals may be further divided into overt or covert (mental) forms. It is essential that patients understand the difference between obsessions and mental compulsions, because obsessions are treated with systematic exposure and mental compulsions, with ritual preventions. During treatment, patients should be instructed to report any mental compulsions to the therapist, because performing such compulsions during exposure exercises attenuates the effects of these exercises in the same way that behavioral compulsions do.

External Fear Cues

Most individuals with OCD experience fear in reaction to specific environmental cues (objects, persons, or situations), but each patient has his/her own idiosyncratic threat cues. For example, individuals who fear contamination from toilets may differ as to whether they fear all toilets or only those open to the public. One patient may fear only the toilet itself, whereas another may also fear bathroom floors, doorknobs, and faucets. Similarly, two individuals may experience distress at the prospect of a fire burning down their home, but whereas one experiences the distress only when she is the last person to leave the house, the other experiences distress before going to bed at night when his children are present.

The therapist needs to gather specific information about cues that elicit the patient's distress to identify the basic sources of the fear. Identification of the basic source is important for planning the treatment program. Confronting the source of the fear is essential for successful behavioral treatment of OCD. Often, when such exposure does not take place during treatment, relapse occurs. For example, a patient who feared contamination by her hometown was treated with EX/RP 3,000 miles away from the town. Because of the distances involved, direct exposure to the town was impossible, so treatment comprised exposure to objects contaminated directly or indirectly by contact with the town. Although the patient habituated to the objects used in the exposure sessions, she continued to fear her hometown. Within 1 year after treatment, she had developed fears to new objects related to her hometown. Not until she engaged in repeated exposures to the town itself did she experience lasting improvement.

It is important that the therapist conduct a thorough investigation of objects, situations, and places that evoke obsessional distress for the patient at the time of presentation and at onset. Such information helps to identify the source of the distress. To facilitate communication with the patient about situations that evoke distress, a Subjective Units of Discomfort Scale (SUDS) ranging from 0 to 100 points is introduced. Patients are asked to rate each situation with respect to the level of distress they expect to experience upon exposure. The source of the distress is expected to be 100. The following dialogue between therapist and patient illustrates the process of gathering information about distressing situations.

THERAPIST: When do you get the urge to wash your hands?

PATIENT: In a lot of places. There are so many places.

THERAPIST: Are there any places where the urges are particularly strong?

PATIENT: Well when I am sitting in my living room, particularly near the fireplace. Also in the laundry room, which I never go to. Also, when I walk in the park.

THERAPIST: Let's talk about your living room. How upset are you when you are sitting next to your fireplace?

PATIENT: That's bad. I guess about a 90.

THERAPIST: Can you tell me what makes you so upset in your living room?

PATIENT: Well that is a long story . . . and I know it doesn't make sense.

THERAPIST: Go on. It's important that we understand what makes you uncomfortable and fearful in your living room.

PATIENT: About 2 years ago, I got up in the morning and went into the living room, and I saw a dead squirrel in the fireplace. I guess he got in through the chimney. So, I figured that if the squirrel was dead, he must have been sick. I know that a lot of squirrels have rabies, so I thought that if the squirrel died of rabies, then there are germs all over the chimney.

THERAPIST: Have you tried to have the chimney and the fireplace cleaned?

PATIENT: Yes, we did have a company come in and clean the whole area, but I'm not sure that they can clean away the germs.

THERAPIST: I understand. How about the laundry room? How upsetting is it to be in the laundry room?

PATIENT: That would be a 100; that's why I don't go in there.

THERAPIST: How did the laundry room become dangerous?

PATIENT: Oh, that's another story. Until a year ago, my children used to keep their guinea pigs in the laundry room. One day we found the female guinea pig dead. So I thought that it probably died of rabies, too.

THERAPIST: Oh, I understand. So you are generally afraid you will contract rabies if you come in contact with things that you think are contaminated with rabies germs. Is this true?

PATIENT: Exactly. That's why I don't like to walk in the woods or the park. You know, those places have all kind of animals, and you can never tell where the germs might be.

It is clear from this conversation that it was not living rooms, laundry rooms, or parks per se that the patient feared. Rather, any situation or object that, in her mind, had some probability of being infested with rabies germs became a source of contamination. Some contamination-fearful patients, however, cannot specify feared consequences of coming into contact with stimuli they perceive to be contaminated. For these patients, the primary fear is that they will not be able to tolerate the extreme emotional distress generated by being contaminated. With such patients, it is also important to probe further to discern whether they have fears about the long-term health consequences of experiencing high and unremitting anxiety in response to stimuli that prompt obsessions.

Internal Fear Cues

Anxiety and distress may also be generated by images, impulses, or abstract thoughts that the individual finds disturbing, shameful, or disgusting. Examples of such cues include impulses to stab one's child, thoughts of one's spouse injured in an accident, or images of religious figures engaged in sexual activity. Clearly, internal threat cues may be produced by external situations, such as the sight of a knife triggering the impulse to stab one's child. Some patients may become distressed when they experience certain bodily sensations, such as minor pains triggering the fear of having cancer.

In many cases, patients may be reluctant to express their obsessive thoughts, because they are either ashamed of them or fear that expressing them will make the consequence more likely to occur. In these cases, the therapist needs to encourage the expression of these thoughts through direct questioning and a matter-of-fact attitude. Sometimes it helps to tell the patient that many people with and without OCD have unwanted thoughts (as many as 85% of normal individuals; Rachman & DeSilva, 1978). It may also be helpful to remind the patient that talking about the obsessions will be a part of therapy; the evaluation session provides an opportunity to begin this process.

THERAPIST: So tell me, when is it that you feel the urge to count?

PATIENT: It seems like I'm always counting something, but it's mostly when I think about certain things.

THERAPIST: What kind of things?

PATIENT: I don't know. Bad things.

THERAPIST: Can you give me some examples of bad thoughts that will make you want to count?

PATIENT: (*brief silence*) I really prefer not to talk about them. It makes things worse.

THERAPIST: You mean it makes the counting worse?

PATIENT: Yes.

THERAPIST: All right, I know now that when you think or talk about certain bad things, you have an urge to count, but I still don't know what those bad things are. How about you tell me so that I can help you with them?

PATIENT: I'd really rather not. Can't we talk about something else?

THERAPIST: It is important that I know what the thoughts are to plan your treatment. I'll try to help you. Do the thoughts involve someone being hurt?

PATIENT: Yes.

THERAPIST: Do the thoughts involve only certain people getting hurt or could it be anyone?

PATIENT: Mostly my family.

THERAPIST: OK, what else can you tell me about the thoughts?

PATIENT: I really don't want to say any more.

THERAPIST: I know this is scary, but remember that facing your fears is what this treatment is all about.

PATIENT: OK. It's not always thoughts. Sometimes I see pictures in my mind, where my brother or my mom and dad are killed. I'm afraid when I talk about these thoughts and pictures that they really will die.

THERAPIST: A lot of people have thoughts that they don't like to have. Even people without OCD. Just because you have these thoughts, or talk about them, doesn't mean that bad things will actually happen or that you want them to come true.

It is important to reassure the patient that unpleasant thoughts occur often and to emphasize the distinction between thoughts and reality. Many patients with OCD have magical ideas in which the distinction between "thinking about" and "making things happen" is blurred, a process labeled by Salkovskis (1985) as "thought–action fusion" (TAF). It is important to point out to the patient that thoughts are different from actions. Also, many patients think that if negative thoughts enter their mind, then it means they wish the bad thing will happen. The therapist should assure the patient that thinking about bad things does not mean that one wants them to happen. These sorts of informal discussions of mistaken beliefs are an integral part of correct implementation of EX/RP. Such discussions should accompany the treatment planning process and be reiterated as needed during exposure exercises. It is, however, important that such discussions accompany EX/RP exercises rather than replace them.

Feared Consequences

Many individuals with OCD are afraid that something terrible will happen if they fail to perform their rituals. Such patients with washing rituals, for example, typically fear that they and/or someone else will become ill or disabled, or die, as a result of being contaminated. Many patients with checking rituals fear that because of their negligence, certain catastrophes will occur, such as their homes burning down, or that they might kill someone while driving. Some patients have only a vague notion of what these negative consequences might be (e.g., "I don't know exactly what will happen, but I feel that if I don't count to 7, something bad will happen to my family"). Others do not fear catastrophes at all, but they cannot tolerate the emotional distress they experience if they do not perform rituals. Some fear that unless they ritualize, anxiety will increase continually, until they have a nervous breakdown. Approximately two-thirds of patients with OCD could clearly identify consequences other than emotional distress that would result when they refrained from performing rituals, whereas the remainder could report no such consequences (Foa et al., 1995).

It is important to identify the specific details of the patient's feared consequences to plan an effective exposure program. For example, the content of the imaginal exposure of a patient who checks while driving for fear of having hit a pedestrian and being sent to jail differs from that of a patient who fears that hitting a pedestrian will result in punishment by God. Similarly, patients who ritualistically place objects in a specific order may differ with respect to their feared catastrophes. Some perform the ritual to prevent catastrophic consequences (e.g., death of parents), whereas others do so only to reduce distress elicited by disordered objects. The former

would benefit from treatment that includes both imaginal and *in vivo* exposure, whereas the latter is likely to profit from *in vivo* exposure alone.

Strength of Belief

Clinical observations have led to suggestions that individuals with OCD who have poor insight do not respond well to exposure and response prevention, although two later studies failed to find a linear relationship between strength of belief in feared catastrophes and improvement following exposure and response prevention (Foa et al., 1999; Lelliott, Noshirvani, Basoglu, Marks, & Monteiro, 1988). Two issues need to be considered in evaluating these collective findings. First, the reliability and validity of the strength of belief measures used in previous studies are unknown. Second, the relationship between overvalued ideation and treatment outcome may not be linear. Clinical observation suggests that only patients who express extreme belief in their obsessional ideation show poor outcome. Indeed, Foa and colleagues (1999) found that only extremely strong belief (fixed belief) was associated with attenuated outcome. Such patients may appear delusional when discussing their feared catastrophes. We hypothesize that the effect of fixed belief on outcome may be mediated by treatment compliance: Patients who are convinced that feared disasters will ensue if they engaged in prescribed exercises probably will not complete the tasks as assigned.

When assessing the strength of belief, it is important to remember that a patient's insight into the senselessness of his/her belief often fluctuates. Some patients readily acknowledge that their obsessional beliefs are irrational, but the beliefs still cause marked distress. A few individuals firmly believe that their obsessions and compulsions are rational. In most patients, though, the strength of belief fluctuates across situations, making it difficult to ascertain the degree to which they believe the obsessions are irrational. The following example is an inquiry into the strength of a patient's belief in her obsessional fear of contracting acquired immune deficiency syndrome (AIDS).

THERAPIST: How likely is it that you will contract AIDS from using a public restroom?

PATIENT: I'm really terrified that I will get AIDS if I use a bathroom in a restaurant.

THERAPIST: I know that you are afraid of getting AIDS, but if you think logically, how likely do you think you are to get AIDS by sitting on a public toilet?

PATIENT: I think I will get AIDS if I use a public toilet.

THERAPIST: So do you mean to say that there is a 100% chance of you getting AIDS if you sit on a public toilet once?

PATIENT: Well, I don't know about once, but if I did it again and again I would.

THERAPIST: What about other people? Will they get AIDS if they use a public toilet?

PATIENT: I guess so. I'm not sure.

THERAPIST: Since most people use public bathrooms, almost everyone should have AIDS by now. How do you explain the fact that a relatively small number of people have AIDS?

PATIENT: Maybe not everybody is as susceptible to AIDS as I am.

THERAPIST: Do you think that you are more susceptible than other people?

PATIENT: I don't know for sure. Maybe the likelihood of my getting AIDS is only 50%.

Based on the interaction just described, the therapist concluded that the patient was not an "overvalued ideator"; thus, the prognosis for this patient is brighter than it would be if she continued strongly to hold her original belief. Accordingly, the implementation of EX/RP for this patient would follow the standard guidelines.

Avoidance and Rituals

To maximize treatment efficacy, all avoidance and ritualistic behaviors, even seemingly minor ones, should be prevented. Therefore, the therapist should gather complete information about all passive avoidance and rituals. When the therapist is in doubt as to whether a particular avoidance behavior is related to OCD, he/she might suggest an "experiment" in which the patient is exposed to the avoided situation. If the patient experiences anxiety or distress, the avoidance behavior should be prevented as part of treatment. Similarly, if it is unclear whether a given action constitutes a ritual, a response prevention "experiment" may be implemented. If refraining from performing the action evokes distress, the action is identified as a ritual and should be addressed in therapy.

Individuals with OCD, like those with specific phobias, often attempt to avoid anxiety-evoking situations. Most passive avoidance strategies are fairly obvious (e.g., not entering public restrooms, not preparing meals, and not taking out the trash). However, the therapist also needs to be attentive to subtle forms of avoidance, such as carrying money in one's pockets to avoid opening a wallet, wearing slip-on shoes to avoid touching laces, and using drinking straws to avoid contact with a glass or a can. Patients with obsessive–compulsive checking rituals also engage in subtle avoidance behaviors that are important to explore, such as arranging their work schedules to ensure that they are rarely, if ever, the last person to leave the business, thus ensuring that the responsibility for checking the safe falls on a coworker.

Active rituals, such as passive avoidance, may be explicit (e.g., prolonged washing, repeated checks of the door, and ordering of objects) and/or subtle (e.g., wiping hands on pant legs, blinking, and thinking "good" thoughts). It is important that the therapist identify both explicit and subtle rituals, so that both may be addressed during treatment.

Although compulsive rituals are intended to reduce the distress associated with obsessions, patients sometimes report that the performance of these rituals is aversive in itself. For example, Ms. S, who was obsessed with the orderliness of objects on her shelves, found reordering the shelves aversive, because she was unable to find the "perfect" place for everything. Similarly, Mr. J, who felt contaminated by chemicals, found the act of decontaminating himself by repeated handwashing aversive, because he was unable to decide when his hands were sufficiently clean; therefore, he washed until his hands became raw. Rituals may also become aversive because of their intrusion into other aspects of the person's life. For example, Mr. J, who would take 2-hour-long showers to feel adequately clean, was reprimanded repeatedly by his supervisor for arriving late to work.

When certain compulsions become aversive, some patients decrease the time they spend performing the ritual by increasing avoidance behaviors, or by substituting other, less time-consuming rituals. For example, Ms. E, who was obsessed with fears of contamination by funeral-related objects (e.g., cemeteries and people returning from a funeral), responded with hours of showering and handwashing. She eventually retreated into her bedroom and avoided all contact with the outside world. Mr. J, described earlier, avoided taking a shower for days at a time, but between showers he wiped his hands compulsively and avoided touching his wife. In some cases, seemingly "new" rituals may develop during the course of treatment to function in the place of those previously identified and eliminated. For example, Mr. F, who was concerned about his hands becoming contaminated, successfully resisted the urge to wash his hands, but soon after response prevention was implemented, he started to rub his hands together vigorously to "decontaminate" them. When such a substitute ritual is identified, it also needs to be addressed in treatment with ritual prevention. Therapists must remain alert to not only such shifts in ritualistic behaviors but also alert patients to the possibility of such shifts.

History of Main Complaint and Treatment History

Many individuals with OCD are unable to give a detailed account of the onset of their symptoms because the symptoms began subtly, many years ago. Nevertheless, therapists should attempt to collect as much information as possible about the onset and course of the disorder. Such information may provide clues about aspects of the fear network and variables associated with the maintenance of symptoms, and may help to anticipate difficulties that may arise during treatment (e.g., old obsessions or rituals that may resurface as more prominent ones diminish).

Many such individuals also have an extensive history of psychological and pharmacological treatments, and it is important to make a detailed inquiry about the outcome of previous treatments. If the patient has been treated with EX/RP, the therapist should assess whether the treatment was implemented appropriately and the patient was compliant with treatment demands. Knowledge that a patient experienced difficulty complying with response prevention instructions, or that previous therapy failed to provide adequate exposure experiences or response prevention instructions, is important for designing the behavioral program. Other factors that may have prevented successful outcome or caused relapse, such as job stress, death in the family, or pregnancy, should be discussed. At the same time, a prior failed course of EX/RP should not necessarily be viewed as prognostic, especially if the patient recognizes why the therapy was less successful in the past. One of our patients, who had failed multiple trials of less intensive EX/RP, came to our center with the knowledge that his noncompliance with exposure exercises between weekly sessions greatly reduced the effects of treatment. He also noted that the slow progress he

observed in these previous therapies demoralized him and caused further disengagement from the treatment. When offered a choice of daily versus twice-weekly sessions, he opted for the daily treatment, noting that the more intensive approach might decrease the chance of similar lapses. He has now successfully completed the intensive regimen.

In our clinic we have observed that a substantial majority of our outpatients have been treated, or are currently being treated, with serotonergic medications. Some seek EX/RP to augment the partial gains they have achieved with the medication. Others wish to discontinue the medication because it was ineffective, it had side effects, or they do not want to continue taking medicine indefinitely. Assessment of the patient's treatment goals is necessary for planning his/her treatment program.

Social Functioning

Obsessive–compulsive symptoms may severely disrupt the daily functioning of patients. Therapists should assess the impact of OCD symptoms on the various areas of functioning. When appropriate, this information should be used to design suitable exposure exercises. For example, Ms. D experienced difficulties completing assignments at work, because she repeatedly checked each task. Treatment included exposures to performing tasks at work without checking. Even if the client is not currently working, exposures simulating work situations may be necessary if symptoms created difficulties in previous jobs.

OCD clearly has a deleterious effect on the intimate relationships of many patients. About half of married individuals seeking treatment for OCD experience marital distress (Emmelkmp et al., 1990; Riggs et al., 1992). Other family and social relationships may also suffer as a result of OCD symptoms. The impairment in social functioning may arise because social contact is either perceived as threatening (e.g., "I may spread germs to other people") or so much of the patient's time and energy is invested in performing rituals and planning ways to avoid distressing situations. Again, information about the relation of social dysfunction to OCD symptoms may lead the therapist to include specific exposures aimed at ameliorating these social difficulties.

The assessment of social functioning should also include an evaluation of what role, if any, other people play in the patient's compulsive rituals. If the patient relies on others for reassurance or compliance with rituals (e.g., family members must remove their shoes before entering the house), the therapist should instruct family members how to respond appropriately when asked to participate in the patient's rituals. A careful analysis of the relationship is called for before specific instructions are given to significant others. Moreover, if family members tend to criticize the patient when obsessional distress arises, it is important to address these negative exchanges in treatment. We have often addressed this issue with a combination of empathic discussion of the frustration experienced by the family member and role playing of more effective responses.

Mood State

Although some patients with serious depression and OCD may benefit from behavioral therapy for OCD (Foa, Franklin, et al., 1992), research suggests that severe depression may limit the extent of reduction of OCD symptoms and the maintenance of those gains (e.g., Abramowitz et al., 2000). Therefore, it is important to assess the mood state of the patient prior to beginning behavioral therapy. Patients with severe depression should be treated with antidepressant medication or cognitive therapy to reduce the depressive symptoms prior to implementing behavioral therapy for the OCD. Treatment with serotonergic antidepressants may reduce OCD symptoms, as well as depression. Because the effects of such medication on OCD symptoms may not be evident until 3 months after treatment begins, the therapist needs to use his/her clinical judgment to decide whether to begin EX/RP when the depression decreases or wait until the effects of the medication on OCD symptoms can be assessed.

Choice of Treatment

How should a therapist determine the most suitable treatment for a given patient? As discussed earlier, EX/RP, as well as serotonergic medications, have demonstrated efficacy for OCD. Therapist and patient are faced with the choice of EX/RP, pharmacotherapy, or a combination of the two. Neither treatment is effective with all patients, and no consistent predictors of who will benefit most from which treatment modality have been identified. Therefore, unless the patient has been particularly successful or unsuccessful with some previous course of treatment, the decision should be based on factors such as availability of treatment, amount of time the patient is able or willing to invest in treatment,

and his/her motivation and willingness to tolerate side effects.

The intensive treatment requires a considerable investment of time over a period of several weeks. Many patients are unable, or unwilling, to devote 4–5 hours a day to treatment. These patients should be advised to try pharmacological treatment, which does not require the same extensive time commitment. Recent investigations of the effects of a twice-weekly EX/RP regimen compared to intensive treatment suggested comparable outcomes at follow-up (Abramowitz et al., 2003; Storch et al., 2007); thus, in our center, we routinely offer either program to patients considering EX/RP. Some patients may be unwilling (sometimes expressed as "I can't do that") to experience the temporary discomfort caused by EX/RP. These patients, too, may be advised to try medications. The need to develop "readiness programs" designed to prepare such patients to accept EX/RP treatment is often cited in light of the relatively high refusal rate among patients offered EX/RP. Such programs may include testimonials from previously treated patients, cognitive strategies designed to help the patient calculate objective risks more accurately, psychoeducation about OCD and EX/RP, and a review of the outcome literature for various treatments (Tolin, Maltby, Diefenbach, Hannan, & Worhunsky, 2004). An initial RCT of EX/RP plus motivational interviewing (MI) did not yield outcomes that were superior to EX/RP alone (Simpson et al., 2010), but the study did not specifically recruit patients who were experiencing low motivation. Manualizing programs specifically for those patients and examining the acceptance rate and efficacy of EX/RP infused with MI constitutes the next step in this line of research.

Patients who are concerned about the potential (or have already experienced) side effects of medications or their unknown long-term effects often prefer EX/RP. Other patients are concerned with the prospect of entering an "endless" treatment because, according to present knowledge, relapse occurs when medication is withdrawn (Pato et al., 1988; Thorén, Asberg, Chronholm, Jörnestedt, & Träskman, 1980). This concern is particularly relevant for women who plan to bear children and need to withdraw from the medication during pregnancy. EX/RP should be recommended to these patients because its effects are more enduring.

As discussed earlier, the long-term effects of combining EX/RP and medication are unclear; therefore, it is premature to recommend treatment programs that combine the two therapies. However, some patients who present for treatment are already on antidepressant medication. Because these medications were found not to interfere with the effectiveness of EX/RP (Franklin et al., 2000), it is recommended that patients continue to take the medication if they have experienced some improvement in either obsessive–compulsive symptoms or depression. However, if the patient has not experienced improvement with medication, withdrawal of the medication before or during EX/RP should be considered. Special consideration should be given to patients with severe depression concurrent with their OCD. It is recommended that these patients be treated with antidepressants or cognitive therapy for the depression prior to entering intensive EX/RP for the OCD given recent findings of somewhat attenuated outcome for severely depressed patients (Abramowitz et al., 2000).

INTENSIVE EX/RP PROGRAM

The intensive treatment program comprises four phases: (1) information gathering, (2) intensive EX/RP, (3) a home visit, and (4) maintenance and relapse prevention.

Information Gathering and Treatment Planning

The first stage of information gathering consists of a thorough diagnostic evaluation to determine that the patient's main psychopathology is OCD. The second step is to assess whether the patient is appropriate for EX/RP. We recommend that individuals who are abusing drugs or alcohol should be treated for the substance abuse prior to intensive treatment for OCD. Patients who have clear delusions and hallucinations are also poor candidates for intensive treatment. Individuals with severe MDD should be treated for depression before beginning treatment for OCD. The patient's motivation to comply with the demands of intensive treatment should be carefully evaluated. It is important to describe the treatment program in enough detail that the patient is not surprised when treatment begins. If the patient does not express strong motivation and commitment to treatment, it might be preferable to delay implementation of intensive treatment or to offer alternative treatments, such as medication. As noted earlier, a study of less intensive EX/RP for patients who appear otherwise motivated, yet cannot accommodate the daily regimen into their schedules, suggested an outcome comparable to intensive treatment; future re-

search with much larger samples is needed to determine whether patient factors predict differential outcome to either treatment schedule.

Once a patient is judged to be appropriate for intensive treatment, information gathering for treatment planning begins. This phase typically comprises 4–6 hours of contact with the patient over a period of 2–3 days. During this phase, the therapist collects information about the patient's obsessive–compulsive symptoms, general history, and the history of treatment for OCD, as described earlier. During these sessions, the therapist discusses the rationale for treatment, describes the program in detail, teaches patients to monitor their rituals, and develops a treatment plan.

First Information-Gathering Session

It is very important to discuss the rationale for treatment and to describe the treatment program in detail. The program requires that the patient abandon his/her obsessive–compulsive habits, therefore temporarily experiencing substantial discomfort. If patients do not understand why they are asked to suffer this short-term distress or are not convinced that treatment will work, they are unlikely to comply with treatment instructions. The treatment rationale is explained as follows:

"You have a set of habits that, as you know, are called obsessive–compulsive symptoms. These are habits of thinking, feeling, and acting that are extremely unpleasant, wasteful, and difficult to get rid of on your own. Usually, these habits involve thoughts, images, or impulses that habitually come to your mind, even though you don't want them. Along with these thoughts you have unwanted feelings of extreme distress or anxiety and strong urges to do something to reduce the distress. To try to get rid of the anxiety, people get into the habit of engaging in various special thoughts or actions, which we call 'rituals.'

"Unfortunately, as you know, the rituals do not work all that well, and the distress decreases for a short time only, then comes back again. Eventually, you may find yourself doing more and more ritualizing to try to reduce anxiety, but even then the relief is temporary and you have to do the ritual all over again. Gradually, you find yourself spending so much time and energy ritualizing—which does not work that well anyway—that other areas of your life are seriously disrupted.

"The treatment we are about to begin is called exposure and response prevention. It is designed to break two types of associations. The first association is between sensations of anxiety and the objects, situations, or thoughts that produce this distress. [The therapist uses information collected as examples; e.g., 'Every time you touch anything associated with urine you feel anxious, distressed, or contaminated.'] The second association we want to break is that between carrying out ritualistic behavior and the feeling of less anxiety or less distress. In other words, after you carry out [specifies the identified rituals], you temporarily feel less distress. Therefore, you continue to engage in this behavior frequently. The treatment we offer breaks the automatic bond between the feelings of discomfort/anxiety/contamination of [specifies the obsession] and your rituals. It will also train you not to ritualize when you are anxious."

After presenting the treatment rationale, the therapist should begin to collect information about the patient's OCD symptoms. The rationale for information gathering and a description of the treatment is presented as follows:

"In the next two sessions, I will ask you specific questions about the various situations and thoughts that generate discomfort or anxiety in you. We will order them according to the degree of distress they generate in you on a scale from 0 to 100, where 0 means *No anxiety* and 100 means *Maximum anxiety or panic*. The exposure treatment program involves confronting you with situations and thoughts that you avoid because they generate anxiety and urges to carry out ritualistic behavior. Why do we want to expose you to places and objects that will make you uncomfortable, situations that you have attempted to avoid even at much cost? We know that when people are exposed to situations that they fear, anxiety gradually declines. Through exposure, then, the association between anxiety and [specifies the obsession] weaken because you are repeatedly exposed to these situations, so that the previously evoked anxiety decreases with time.

"For many people with OCD the obsessions occur within their imagination and rarely take place in reality. This makes it impossible to practice exposure by actually confronting those situations for prolonged periods. For example, if a person fears that her home

will burn down, we certainly do not wish to have her house catch on fire in order to practice exposure. Similarly, someone who fears that he has run over a person who is now lying in the road cannot in reality be exposed to such a situation.

"If confrontation with the feared situation is necessary to reduce obsessions, how can you improve without directly confronting the situation? You can confront these fears through imagery, in which you visualize the circumstances that you fear will happen. In imagery practice, you create in your mind detailed pictures of the terrible consequences that you are afraid will occur if you do not engage in the ritualistic behavior. During prolonged exposure to these images, the distress level associated with them gradually decreases.

"When people with OCD encounter their feared situations or their obsessional thoughts, they become anxious or distressed and feel compelled to perform the ritualistic behavior as a way to reduce their distress. Exposure practices can cause this same distress and urge to ritualize. Usually, performing rituals strengthens the pattern of distress and rituals. Therefore in treatment, ritual prevention is practiced to break the habit of ritualizing. This requires that you stop ritualizing, even though you are still having urges to do so. By facing your fears without resorting to compulsions, you gradually become less anxious. Behavior therapists call this process *habituation.* Therefore, during the 3 weeks of intensive exposure, the association between relief from anxiety and carrying out [specifies the patient's rituals] will become weaker because you will not be allowed to engage in such behaviors; therefore, you will find out that your anxiety decreases even if you do not resort to these activities."

The initial information-gathering session is also used to begin training the patient to monitor his/her rituals accurately. Accurate reports of the frequency and duration of ritualistic behavior are important to evaluate the progress of treatment and to demonstrate the reality of changes to the patient. In some cases, the monitoring also serves an active role in treatment. Patients begin to recognize that rituals do not truly occur "all day long" and the act of monitoring the rituals may decrease their frequency and duration.

"It is very important for the treatment program that we have an accurate picture of the extent to which you engage in obsessive thinking and compulsive behavior. Having a clear picture of how much of your time is taken up by your problem will help us to monitor your progress and adjust the treatment program accordingly. Therefore, during this week, while I am still collecting information to form a treatment program, I would like you to record your symptoms every day. It is not easy to report accurately on how much you engage in your obsessive–compulsive behavior; therefore, we will spend some time now and in the next session going over some rules for how to record your symptoms. Here are some monitoring forms on which you will record your thoughts and rituals."

The therapist should specify which ritual(s) the patient is to record, go over the instructions carefully with the patient, and practice filling out the form with the patient using an "imaginary day" of his/her life. The following rules are helpful in monitoring rituals:

1. Use your watch to monitor the time you spend on your rituals.
2. Do not guess the time of ritualizing; be exact.
3. Write the time immediately on your monitoring form.
4. Do not save the recording to the end of the day or the beginning of the next day.
5. Write a short sentence to describe the trigger for ritualizing.

Prior to beginning treatment, the patient identifies an individual (e.g., parent, spouse, or close friend) who can serve as a support person during the intensive treatment program. The patient is instructed to rely on this person for support during exposures, and the support person is asked to help monitor compliance with response prevention instructions. If the patient experiences difficulty resisting the urge to ritualize, then the support person is contacted for support. Because the support person is involved in the therapy, the therapist allocates time during the information-gathering phase to describe the treatment and discuss its rationale with him or her.

The therapist makes an effort to ensure that the support person and the patient mutually agree that the support person will offer constructive criticism and observations. In making these suggestions, the support person should be sensitive to any difficulties that have arisen in the past. For example, Mr. B, who served

as his wife's primary source of reassurance, also criticized her severely when he "caught" her performing her handwashing ritual. To prevent these responses from hampering treatment, to help the husband supervise his wife's response prevention, the therapist spent time with the couple negotiating appropriate, uncritical responses to the wife's requests for reassurance.

The support person is in regular (at least twice weekly) contact with the therapist and is not only informed about the specific homework exposures that the patient has to accomplish but also relays his/her observations about the patient's behavior outside the therapy session. In addition, with the consent of the patient, the support person should contact the therapist if major treatment violations occur (e.g., refusing to do homework or engaging in ritualistic behavior).

Second Information-Gathering Session

At the beginning of the second information-gathering session, the therapist devotes time to the patient's self-monitoring form, which includes examining the descriptions of situations that trigger ritualistic behavior and offering constructive comments when necessary. The therapist reminds the patient to use short phrases or sentences to describe the trigger situations, assesses the accuracy of the patient's time estimates, and emphasizes the need for accurate measurements.

Generating a Treatment Plan

The bulk of the second information-gathering session is allotted to gathering detailed information about the patient's symptoms and, based on what is learned about the symptoms, developing a treatment with the patient. It is important to explain to the patient how the exposure exercises that comprise his/her treatment will reduce the OCD symptoms. For, example, the patient with religious obsessions is told that the imaginal exposure to burning in hell in excruciating detail is designed to reduce his obsessional distress when a less elaborate image of burning in hell comes into his mind. It is important that patients understand the rationale underlying the central concept in EX/RP, that confronting obsession-evoking stimuli during treatment increases their suffering in the short run but will reduce it in the long run. We often tell patients that the difficulties they experience during the first week of exposure sessions are likely to diminish with proper implementation of EX/RP.

Describing Homework

At the end of the second information-gathering session, the therapist describes the homework assignments included in the treatment program. The homework, which usually requires 2–3 hours, in addition to the 2-hour treatment session, comprises additional exposure exercises to be done between treatment sessions at the patient's home or elsewhere (e.g., a shopping mall or a relative's home). We suggest that the patient monitor his/her SUDS level every 10 minutes during the homework exposures. In some cases, when it is impossible for the patient to maintain an exposure for 45–60 minutes, the therapist works with the patient to develop a plan that allows the exposure to be prolonged. For example, instead of asking the patient to spend 45 minutes sitting in the restroom of a local restaurant, the therapist might suggest that he/she contaminate a handkerchief on the toilet seat and carry this "contamination rag" in a pocket.

Treatment Period

The treatment program at our center typically comprises fifteen 2-hour treatment sessions conducted daily for 3 weeks. Clinical observation suggests that massed sessions produce better results than do sessions spread out over time; therefore, we recommend a minimum of three sessions per week. Each session begins with a 10- to 15-minute discussion of homework assignments and the previous day's ritual monitoring. The next 90 minutes are divided into 45 minutes each of imaginal and *in vivo* exposure. The final 15 minutes are spent discussing the homework assignment for the following day. This format may be adjusted when necessary. For example, if an *in vivo* exposure requires that therapist and patient travel to a local shopping mall to contaminate children's clothing, the entire session is devoted to this activity. Some patients have difficulty engaging emotionally in imaginal exposures (i.e., the images fail to elicit distress). In these cases, treatment should focus exclusively on *in vivo* exercises.

We recommend that the therapist discuss the plan for that session with the patient in the beginning of the session. Barring any unusual circumstances (e.g., patient's stated objection to proceeding with the planned exposure), it is important to limit these discussions to no more than 15 minutes. Patients with OCD are usually very fearful of engaging in exposure tasks, and elaborate discussion of the task at hand may serve as a form

of avoidance of going ahead with the exposure. These preexposure discussions are also fertile ground for assurance seeking (i.e., the patient asking the therapist if he/she is certain that the proposed exercise is safe). The therapist should answer such questions carefully, avoiding either extreme (i.e., neither providing compulsive reassurance nor conveying to the patient that the proposed exposure is objectively dangerous).

Imaginal exposure exercises are typically conducted prior to *in vivo* exercises in each session, often as a prelude to the scheduled *in vivo* exercise. During imaginal exposure the patient is seated in a comfortable chair and is given the following instructions:

> "Today you will be imagining [describes scene]. I'll ask you to close your eyes so that you won't be distracted. Please try to picture this scene as fully and vividly as possible, not like you are being told a story, but as if you were experiencing it now, right here. Every few minutes I will ask you to rate your anxiety level on a scale from 0 to 100. Please answer quickly and try not to leave the image."

The imaginal exposure sessions are audiotaped, and the patient is asked to repeat the exposure by listening to the tape as part of that day's homework. The situations included in *in vivo* exposure vary greatly from patient to patient (particularly with patients with prominent checking rituals). Below are some examples of instructions that might be offered to patients during *in vivo* exposure exercises.

For patients with prominent washing rituals:

> "Today, you will be touching [specifies item(s)]. This means that I will ask you to touch it with your whole hand, not just the fingers, and then to touch it to your face, hair, and clothing, all over yourself, so you feel that no part of you has avoided contamination. Then I'll ask you to sit and hold it and repeatedly touch it to your face, hair, and clothes during the rest of the session. I know that this is likely to make you upset, but remember the anxiety will eventually decrease. I also want you to go ahead and let yourself worry about the harm you are afraid will occur—for example, disease—since you won't he washing or cleaning after this exposure. I am sorry that this treatment has to be difficult and cause so much discomfort, but I'm sure you can do it. You'll find it gets easier as time goes on. OK, here it is, go ahead and touch it."

The therapist should give the patient the object to hold, ask him/her to touch it, then ask the patient to touch the object or the "contaminated" hands directly to his/her face, hair, and clothing. Every 10 minutes the patient should be asked, "What is your level of anxiety or discomfort from 0 to 100 right now as you focus on what you're touching?" This can be shortened to "What is your SUDS level?" once the patient understands the question.

For patients with prominent checking rituals:

> "Now, I'd like you to [e.g., write out your checks to pay your monthly bills without looking at them after you've finished; just put them in the envelope and then we will mail them right away, without checking even once after you've done it]. Then we will go on and do [e.g., drive on a bumpy road without looking in the rearview mirror] in the same way. While doing this, I would like you to worry about what harm might occur because you aren't checking your actions, but don't let the thoughts interfere with actually doing those activities."

Patients should be reminded of the specific instructions for response prevention on the first day of treatment and periodically during treatment. We have found that giving patients a printed copy of the rules for response prevention can help them to understand and remember the rules. If the rules as outlined for the patient do not adequately cover the type of ritual(s) the patient exhibits, the therapist should provide a written set of instructions modeled after these forms.

During the last few sessions of treatment, the patient should be introduced to rules of "normal" washing, cleaning, or checking. Response prevention requirements should be relaxed to enable the patient to return to what is considered a normal routine.

Home Visit

It is important to ensure that the patient's gains from the treatment program generalize to the home environment. Usually, homework assignments function to produce this generalization, but we have found that visits by the therapist to the patient's home can be quite helpful, especially when the patient is not able to return home daily during the intensive treatment phase (e.g., patients who are from out of town or are hospitalized). The home visit also offers therapist and patient an opportunity to discuss guidelines for "normal" behavior.

The therapist should discuss the plans for these visits with the patient and his/her family before the treatment ends. It is also important to note that, in some cases, the majority of the treatment sessions need to be conducted at the patient's home, for example, when treating a hoarder. Determining the frequency of home visits during the core treatment should be based on whether the patient's OCD symptoms are readily "transportable" to situations outside the home, or whether they are specific to the home. For patients with prominent washing rituals, with "safe" rooms and areas in their houses, contamination of these areas is imperative and also quite difficult; it is often advisable that the therapist assist directly with these home-based exposures when it is questionable whether the patient can contaminate these "sanctuaries" successfully on his/her own.

Typically, the home visit comprises 4-hour sessions held on each of 2 days at the end of the treatment program. The bulk of the time in these sessions is used to conduct additional exposures to obsessive stimuli in and around the patient's home or workplace. For example, the therapist might accompany the patient as he/she contaminates objects around the house or at the local grocery store. Similarly, the patient might be asked to turn the stove on and off without checking and leave the house with the therapist. Most patients, particularly those who were able to return home during treatment, report little or no discomfort when doing these exposures, because they represent repetition of homework assignments. In some cases, though, the therapist will discover areas that the patient has not contaminated, or some areas at home that continue to generate distress despite previous exposures. The home visit should focus on exposure to situations or objects that remain problematic.

With more recent development of platforms such as Skype, Zoom, and so forth, home visits become expensive in therapist's time and travel. The goals of the home visits can be achieved through the computer platforms.

Maintenance Period

In addition to prescribing continued self-exposure tasks to help the patient maintain therapy gains, the therapist may wish to schedule regular maintenance sessions. These sessions may be used to plan additional exposures, to refine guidelines for normal behavior, and to address issues that arise as the patient adjusts to life without OCD.

There is some evidence that patients benefit from continued contact with the therapist following the intensive therapy sessions. In one study, 12 weekly supportive therapy sessions (no exposure exercises) appeared to reduce the number of relapses in a sample of individuals with OCD treated with 3 weeks of intensive EX/RP (Foa et al., 1992). In another study, following the intensive treatment with 1 week of daily cognitive-behavioral sessions, followed by eight brief (10-minute) weekly telephone contacts, resulted in better long-term outcome than following intensive treatment with 1 week of treatment with free association (Hiss et al., 1994).

Therapeutic Setting

It is advisable for patients to remain in their normal environments during intensive treatment. This is particularly important for patients whose fears are cued mainly by stimuli in their home environment. The hospital may be an artificially protected setting, particularly for patients with prominent checking rituals, who may not feel responsible for their surroundings and as a result do not experience their usual urges to check. If patients live too far away to commute for daily sessions, we recommend that they rent an apartment or hotel room near the clinic. When this is not possible, hospitalization should be considered. Hospitalization is recommended for patients deemed to be at risk for suicide or psychotic breakdown, and for those who need close supervision but lack a support system sufficient to aid them during treatment.

If a patient is employed and his/her OCD symptoms are work related, he/she should be encouraged to continue working, so that relevant exposures can he included in treatment. However, since treatment requires 5–6 hours per day, the patient may opt to work half-days during the intensive treatment.

When the patient's symptoms are unrelated to work, he/she may decide not to continue working during intensive treatment. Because of the time-consuming nature of the treatment, we often suggest that patients take some time off from work. If it is not possible for the patient to take 3 full weeks off from work, the therapist might suggest that the patient work half-days or take time off from work during the first and second weeks of the treatment program.

Therapist Variables

Intensive treatment with exposure to feared situations and response prevention of ritualistic behavior provoke

considerable stress for patients. Their willingness to undergo such "torture" attests to their strong motivation to rid themselves of the OCD symptoms. The intensive treatment regimen requires that the therapist maintain a delicate balance between pressuring the patient to engage in the treatment and empathizing with his/her distress. Clinical observations and findings from a study by Rabavilas and colleagues (1979) suggest that a respectful, understanding, encouraging, explicit, and challenging therapist is more likely to achieve a successful outcome than a permissive, tolerant therapist. Notably, patients of well-supervised, nonexpert EX/RP therapists appear to fare well with EX/RP (Franklin, Abramowitz, Furr, Kalsy, & Riggs, 2003; Valderhaug et al., 2007).

During treatment, patients' behavior may range from extreme cooperation and willingness to participate in exposures to blatant manipulation and refusal to follow the therapist's instructions. An individual patient may fluctuate depending on what exposure is conducted during a particular session. To a great extent, the "art" of conducting behavioral therapy for OCD involves knowing when to push, when to confront, and when to be more flexible. Such decisions require that the therapist carefully observe the patient's reactions and make a judgment based on his/her experience. As much as possible, the therapist should display an attitude that counteracts the harshness of the treatment program, while maintaining the rules for therapy established at the beginning of the program. The therapist should assure the patient that he/she will not use force to implement exposure, and that no exposure will be planned without the patient's consent. If the patient cannot trust that the therapist will adhere to these essential guidelines, the treatment is likely to be compromised. We also assure patients that family members will be asked not to present unplanned exposures to the patient (e.g., taking out the garbage) without discussing it.

Patient Variables

A primary factor that influences a patient's potential for benefiting from intensive behavioral treatment is the level of his/her motivation. Because EX/RP causes high distress, patients need to be highly motivated to undertake the treatment. Often the level of motivation is related to the severity of the patient's symptoms. When symptoms are sufficiently intolerable, patients are more likely to tolerate considerable discomfort for a short period to gain relief from their symptoms in the long run. Tolin and colleagues (2004) have also discussed the importance of motivational readiness in EX/RP and have suggested specifically how best to prepare patients for the often grueling treatment regimen.

Sometimes individuals are pressured into entering therapy by their families, and they agree to participate in treatment only to appease a spouse or a parent. These patients are unlikely to follow the therapist's instructions strictly; therefore, they are less likely to make lasting gains in therapy. In light of these observations, we do not recommend that patients enter into EX/RP if they are not committed to follow such instructions; alternative treatment strategies are typically recommended in such circumstances.

It is important that the therapist clearly explain to the patient that 1 month of therapy, albeit intensive, is unlikely to eliminate all OCD symptoms. Rather, patients should expect that their anxiety and the urges to ritualize will diminish and become more manageable. An expectation of becoming symptom free at the end of treatment may lead to disappointment and can potentiate relapse, because maintenance of treatment gains usually requires continued effort over time following the intensive treatment. Thus, in the initial interview, we tell patients that we do not have a "cure" for OCD; rather, we have a treatment that is likely to help them substantially reduce their symptoms in both the short and the long run.

It is also important to explain to patients that EX/RP treatment is not a panacea for all of their psychological and interpersonal problems. This treatment is aimed specifically at reducing patients' obsessions and urges to ritualize. Problems that existed prior to treatment (e.g., marital discord or depression) are likely to remain, although they may be somewhat alleviated after treatment.

As mentioned earlier, patients with severe depression and/or an extremely strong belief in the reality of the obsessive fear may not benefit from EX/RP. An additional factor that has been identified as a potential hindrance to the cognitive-behavioral and pharmacological treatment of OCD is concurrent schizotypal personality disorder (Jenike, Baer, Minichiello, Schwartz, & Carey, 1986). Although some questions have been raised about the method used to diagnose schizotypy (see Stanley, Turner, & Borden, 1990), therapists should be alerted to the probability that patients with schizotypal personality disorder may respond poorly to treatment for OCD.

CASE STUDY

In this section we demonstrate through verbatim material the process of gathering information relevant to treatment, planning the treatment program, and conducting exposure sessions.

Case Description

"June," a 26-year-old married woman who had just completed her bachelor's degree in nursing, sought treatment for a severe washing and cleaning problem. She was extremely agitated in the first interview and described herself as "crying a whole lot" during the previous 6 weeks. She arrived in the company of her husband of 6 months and her sister-in-law, whom she considered a good friend. Previous treatment by systematic desensitization, antidepressants, tranquilizers, and cognitive restructuring had proven ineffective. June had been unable to seek employment as a nurse due to her symptoms.

This information was collected at June's initial evaluation for participation in EX/RP treatment. After ascertaining the absence of psychosis, drug and alcohol abuse, and organic disorders, June was assigned a therapist.

Information Gathering

Current Symptoms

First, the therapist sought information from June about the obsessional content, including external and internal fear cues, beliefs about consequences, and information about passive avoidance patterns and types of rituals. Because rituals are the most concrete symptom, it is often convenient to begin the inquiry by asking for a description of this behavior.

THERAPIST: I understand from Dr. F that you are having a lot of difficulty with washing and cleaning. Can you tell me more about the problem?

JUNE: I can't seem to control it at all recently. I wash too much. My showers are taking a long time, and my husband is very upset with me. He and my sister-in-law are trying to help, but I can't stop it. I'm upset all the time and I've been crying a whole lot lately (*on the verge of tears*). Nothing seems to help.

THERAPIST: I see. You look upset right now. Please try to explain what your washing has been like in the past few days, so I can understand. How much washing have you been doing?

JUNE: Much too much. My showers use up all the hot water. And I have to wash my hands, it seems like, all the time. I never feel clean enough.

THERAPIST: About how long does a shower take? How many minutes or hours would you say?

JUNE: About 45 minutes, I guess. I try to get out sooner. Sometimes I ask Kenny to make me stop.

THERAPIST: And how often do you take one?

JUNE: Usually only twice, once in the morning and once at night before bed, but sometimes, if I'm really upset about something, I could take an extra one.

THERAPIST: And what about washing your hands? How much time does that take?

JUNE: You mean how many times do I wash?

THERAPIST: How long does it take each time you wash your hands, and how often do you wash your hands in a day?

JUNE: Umm, maybe 20 times a day. It probably takes me 5 minutes each time, maybe more sometimes. I always have the feeling they're not really clean, like maybe I touched them to the side of the sink after I rinsed and then I think they're dirty again.

The therapist now had some basic information about the most prominent rituals. Some further questioning clarified whether other compulsions were also in evidence.

THERAPIST: Do you do anything else to make yourself feel clean?

JUNE: Yes, I alcohol things. I wipe with alcohol, like the car seat before I sit down.

THERAPIST: Do you wipe yourself with alcohol?

JUNE: No, only things that I think are dirty.

THERAPIST: Can you tell me how much you do that?

JUNE: I use about a bottle of alcohol a week.

Here the therapist had to choose whether to inquire about what objects June cleans or to ask about possible additional rituals. The therapist chose to continue the inquiry about ritualistic actions, and to turn to the subject of "contaminants" as soon as the inquiry was completed.

THERAPIST: OK, can you think of any other things that you do to clean yourself, or other things around you that you feel are dirty?

JUNE: That's all I can think of right now.

THERAPIST: What about other kinds of what we call "compulsive" type of activities? Do you have to check or repeat things over and over?

JUNE: No, except when I wash, if I don't feel it's enough. Then I wash again.

THERAPIST: No other repetitive actions besides washing?

Since this patient did not appear to have multiple types of ritualistic behaviors, the therapist turned to the obsessional content. External cues are usually solicited first.

THERAPIST: What are the things that make you feel you want to wash? For instance, why do you wipe the car seat with alcohol?

JUNE: I think that maybe I got dog dirt on it when I got in from before, or Kenny might have.

THERAPIST: From your shoes?

JUNE: Yes, I also worry about the hem of my dress touching the seat. I've been worrying that my shoe could kick my skirt hem or when I step up a step, like to go in a building, the dress could touch the step.

THERAPIST: A dress like this? June was wearing a dress that came to just below her knee. [The likelihood that it could have touched a curb or sole of her shoe was very slim.]

JUNE: Yes.

THERAPIST: Has your skirt ever had dog dirt on it?

JUNE: I don't think so, but in my mind I think that maybe it could have gotten some on it. I suppose it would be hard for that to happen, wouldn't it?

Thoughts that highly improbable events might have occurred are common in OCD. Such distortions may be the result of intense anxiety. Doubts about "safety" often lead to requests for reassurance or to rituals. Reassuring June that her dress is unlikely to be soiled would have been countertherapeutic, because it perpetuates the neurotic fears. Rather, the therapist inquired further about the obsessional content.

THERAPIST: Is dog "dirt" the most upsetting thing that you worry about?

JUNE: Probably. Yes, I think so, but bathroom germs are pretty bad, too.

THERAPIST: What sort of germs?

JUNE: From toilets. You know, when you go to the bathroom.

THERAPIST: Urine and feces?

JUNE: Yes, urine doesn't bother me as much as the other.

THERAPIST: Why?

JUNE: Because I learned in nursing school that it's almost sterile. I had a hard time in the course about microbiology, because it upset me to try to learn about bacteria and microorganisms. They make it sound like there are all kinds of germs everywhere that are real dangerous. I didn't learn it very well; I tried to avoid thinking about it.

June's concerns with both dog dirt and bathroom germs suggested that her fear structure includes apprehension about potential illness. The therapist questioned her to better understand the nature of the feared consequences of contamination.

THERAPIST: Are you afraid of diseases that could come from feces?

JUNE: Yes, I guess so. The thing of it is, though, I know other people don't worry about it like I do. To them, you know, they just go to the bathroom and wash their hands and don't even think about it. But I can't get it out of my head that maybe I didn't get clean enough.

THERAPIST: If you didn't wash enough, would you get sick or would you cause someone else to get sick?

JUNE: Mostly I worry that I'll get sick, but sometimes I worry about Kenny, too.

THERAPIST: Do you worry about a particular kind of disease?

JUNE: I'm not sure. Some kind of illness.

It is not uncommon for patients who fear harm that may ensue from not ritualizing to be unable to identify a specific feared consequence. Patients with prominent checking rituals often fear they will forget or throw out something important, but they do not always know ex-

actly what this will be. Repeaters may fear that something bad will happen to loved ones but often cannot specify what particular disaster will befall them. However, many individuals with OCD do fear specific consequences (e.g., blindness or leukemia). At this point, the therapist may choose either to complete the inquiry about external threat cues or pursue the investigation about the feared consequences and the belief that such harm is indeed likely to occur. The latter course was selected here.

THERAPIST: Let's say that you did actually touch dog feces or human feces, and you weren't aware of it, so you didn't wash to remove it. What is the likelihood that you or Kenny would really get seriously ill?

JUNE: Well, I feel like it really could happen.

THERAPIST: I understand that when it happens and you become very distressed, it feels like you will actually become sick, but if I ask you to judge objectively, right now, how likely is it that you will get sick from touching feces and not washing? For example, if you were to touch feces 10 times, how many times would you get sick?

JUNE: Oh, I know it's pretty unlikely, but sometimes it seems so real.

THERAPIST: Can you put a number on it? What's the percent chance that if you touched a small amount of feces and didn't wash that you'd get sick?

JUNE: I'd say low, less than 25%.

THERAPIST: That means that one time in every four you'd get sick.

JUNE: No, that's not right. I guess it's really less than 1%.

From this dialogue, it is clear that June did not strongly believe that her feared disasters would actually occur, although her initial estimate of the likelihood was high. A person with poor insight regarding the senselessness of his/her OCD symptoms would have assigned higher probabilities (usually over 80%) and would insist on the accuracy of his/her estimate even in the face of persistent questioning. Note also that this exchange is an example of the informal cognitive restructuring accompanying EX/RP that we discussed earlier. The therapist may need to repeat this discussion during subsequent exposure sessions when June, highly anxious about confronting contaminants, readjusts her likelihood estimates when anxious. Strength of belief can change in a given patient but is stronger when the patient perceives threat.

THERAPIST: OK. Now, besides disease, what else could happen if you got feces on you?

JUNE: I suppose I'm also afraid of what other people might think if I got dog feces on my shoe or on my dress. Somebody would see it or smell it and think it was really disgusting, and I was a dirty person. I think I'm afraid they would think I'm not a good person.

The therapist then questioned June further about this feared consequence, inquiring about the possibility of others evaluating her character negatively because she had feces on her dress. The material regarding feared consequences was collected for later inclusion in the imaginal exposure scenes. To conclude the inquiry about the nature of the obsessions, the therapist further elucidated the external feared stimuli.

THERAPIST: Besides dog and human feces and toilets, what else can "contaminate" you? Is it OK if I use the word *contaminated* to describe how you feel if you handle these things?

JUNE: Yes, it's like I can feel it on my skin, even if I can't see it. Umm, I also get upset if I see "bird doo" on my car.

THERAPIST: Bird droppings? The whitish spots?

JUNE: Yeah, I have to hold my skirt close to me so that I don't touch any of these spots with my clothes.

THERAPIST: OK, bird doo, what else?

JUNE: Dead animals, like on the roadside. I feel like the germs, or whatever it is, get on the tires from the pavement and get on the car. Even if I don't run over it. Like it's spread around the street near it.

THERAPIST: What do you do if you see a dead animal?

JUNE: I swerve wide around it. Once I parked the car and as I got out, I saw this dead cat right behind the car. I had to wash all my clothes and take a shower right away. It was really a mess that day.

THERAPIST: It sounds like that was very difficult for you. Is there anything else besides dead animals that contaminates you?

JUNE: I can't think of any. There are lots of places I

avoid now, but that's because of what we just talked about.

The therapist questions June further about other items that are likely to be contaminated because of their potential relationship to the ones she has already noted.

THERAPIST: What about trash or garbage?

JUNE: Yeah, that bothers me. And I also avoid gutters on the street.

THERAPIST: What's in the gutter that upsets you?

JUNE: Dead animals, I guess. And then the rain spreads the germs down the street. Also rotten garbage. It's really dirty. Sometimes the gutters are really disgusting.

THERAPIST: Um hmm. Are you afraid you could get sick from dead animals and garbage?

JUNE: Yes, it's like the toilets or dog dirt.

To prepare for an exposure program in which objects are presented hierarchically with respect to their ability to provoke discomfort, June was asked to rank her major contaminants. Here she also provided information about avoidance behaviors associated with her contaminants.

THERAPIST: Now, let's make a list of the main things that upset you. I'm going to ask you how distressed you would be on a 0- to 100-point scale if you touched the thing I'll name. Zero indicates no distress at all and 100 means you'd be extremely upset, the most you've ever felt.

JUNE: OK.

THERAPIST: What if you touched dog dirt?

JUNE: And I could wash as much as I wanted?

THERAPIST: No, let's say you couldn't wash for a while.

JUNE: 100.

THERAPIST: A dead animal.

JUNE: Also 100.

THERAPIST: Bird doo on your car.

JUNE: That depends on whether it is wet or dry.

THERAPIST: Tell me for both.

JUNE: 100 wet and 95 dry.

THERAPIST: Street gutter.

JUNE: 95.

THERAPIST: Garbage in your sink at home.

JUNE: Not too bad. Only 50. But, the trash can outdoors would be 90.

THERAPIST: Why the difference?

JUNE: Because the inside of the trash can is dirty from lots of old garbage.

THERAPIST: I see. What about a public toilet seat?

JUNE: That's bad. 95.

THERAPIST: Car tires?

JUNE: Usually 90. But if I just passed a dead animal, they'd be 99.

THERAPIST: What about a doorknob to a public bathroom?

JUNE: The outside knob is low, like 40. But the inside knob is 80, because people touch it right after they've used the bathroom, and I've seen that some don't wash their hands.

THERAPIST: I understand. How about grass in a park where dogs are around?

JUNE: If I did walk in the grass, it would be about 80 or 85, but I don't usually do it. I also have a lot of trouble on sidewalks. You know, the brown spots on the concrete. I guess most of it is just rust or other dirt, but I think maybe it could be dog dirt.

THERAPIST: How much does that bother you?

JUNE: To step on a brown spot? About 90. I always walk around them.

The therapist should continue in this manner until a list of 10–20 items is formed. More items may be necessary for patients with multiple obsessional fears or rituals. The items are ordered from low- to high-level fear in preparation for treatment by exposure. Items equivalent with regard to their level of disturbance are grouped together. Moreover, it is important to probe the rationale for one stimulus differing from another, because it provides further information about the patient's particular "OCD logic." This information is highly relevant for the construction of the exposure hierarchy and for the informal cognitive discussions about risk assessment, responsibility, and so forth.

Considerable information about avoidance patterns and rituals emerged from the previous interview about external threat cues. More details may be obtained by

asking the patient to provide a step-by-step description of a typical day's activities from the time he/she awakens until he/she goes to sleep. Usually, patients are not entirely accurate when describing their compulsive behaviors during the interview because, as one patient told us, they have not "thought of their OCD in that way before." Thus, the self-monitoring tasks assist patients in raising their awareness about the OCD patterns and provide the therapist with more accurate data about rituals and avoidant behaviors.

We were particularly concerned by June's bathroom routines, her shower, use of the toilet, handling of towels and dirty clothes, and dressing and putting on shoes. Additional information about avoidance patterns may be ascertained by inquiring about other routine activities, such as shopping, eating out, housecleaning, preparing meals, working, and so on. The following dialogue exemplifies the degree of detail desired.

THERAPIST: June, for us to plan your treatment carefully, I need to know what you avoid in your daily routine. Why don't you start by describing what you do first when you wake up?

JUNE: I go to use the bathroom first.

THERAPIST: Nightgown on or off?

JUNE: I take off my nightgown, because I don't want it to touch the toilet. That way it's clean at night after I shower.

THERAPIST: Go on.

JUNE: I go to the toilet. I suppose I use a lot of toilet paper because I don't want to get anything on my hand. Then I have to shower after a bowel movement.

THERAPIST: How do you get ready to shower?

JUNE: I have to put a new towel on the rod near the shower. I don't like it to touch anything before I use it. Oh, and I put my slippers facing the door, near the shower, so I can put them on without stepping on the bathroom floor when I get out of the shower. Then I get into the shower.

THERAPIST: You said you shower for 45 minutes. Why does it take so long?

JUNE: I have to wash myself in a special order and I count how many times I wash each part. Like I wash my arm four times. That's why it takes so long.

THERAPIST: What is the order you use?

JUNE: First I wash my hands, then my face and hair, and then I go from the top down.

THERAPIST: What about the genital and anal area? [This area should disturb this patient most, because she fears contamination from fecal "germs."]

JUNE: Oh yes, those are last, after my feet.

Such a detailed description helps the therapist to anticipate possible avoidance by the patient during treatment and to plan specific exposure instructions. Supervision of normal washing behavior at the end of treatment will address June's tendency to count and to order her washing. During the initial session of information gathering, June was instructed to self-monitor the frequency and duration of her compulsions.

THERAPIST: Between now and our next session, I'd like you to record all the washing and cleaning that you do, including wiping things with alcohol. You can use this form (*Hands her a self-monitoring of rituals form.*) Please write down every time you wash, how long you washed, what made you wash, and how anxious you were before you washed. This kind of record will help us identify any sources of contamination you've forgotten to mention, and we can also use it to measure your progress during treatment.

JUNE: Do you want me to write in each space for each half-hour?

THERAPIST: No, only when you wash or use alcohol.

JUNE: OK.

History of Symptoms and Treatment History

After assessing the patient's current symptoms, the therapist sought information about the onset of the problem, with particular reference to the presence of specific stressors at the time and whether these stressors are still present.

THERAPIST: How long have you been washing like this?

JUNE: It started about 2 years ago in my first year of nursing school. It wasn't real bad right away. It started with the city. I had to go into the city to classes, and the city seemed real dirty.

THERAPIST: Did nursing have something to do with it?

JUNE: Maybe. I was under a lot of tension. I had to quit working as a secretary, and it was pretty hard without an income and a lot of school bills. My mother and dad weren't much help. And then we started to learn

all the sterilizing techniques, and I already told you about the course in microbiology.

THERAPIST: Did it gradually get worse?

JUNE: Mostly, but I did notice that it was a lot worse after a rotation on surgery, where I was really worried about germs contaminating the instruments. That's when I started to wash more than usual.

THERAPIST: Did you seek help at that time?

JUNE: I was already seeing Dr. W at the university, and he tried to help.

THERAPIST: You were already in treatment with him? For what reason?

JUNE: He was helping me with an eating problem. I had anorexia. I'd been seeing him for about a year when the washing started.

THERAPIST: Anorexia? Did treatment help?

JUNE: Yes. I was down to 85 pounds, and I'm up around 105 now. He mostly asked me to increase my weight every week and he did "cognitive therapy," I think it's called.

THERAPIST: I see. What about the washing problem?

JUNE: He tried the same type of therapy, but it didn't work for that. That's why I'm here. My sister-in-law heard about it, and Dr. W said I should come.

THERAPIST: What about drugs? Were you ever given medication for this problem?

JUNE: Yes, I tried Anafranil [clomipramine] for a while and it helped a little, but it made me dizzy and sleepy, so I decided to stop taking it. Also, I heard that you can't take the medication when you are pregnant, and Kenny and I want to have a baby soon. Before that, I took Xanax [alprazolam]; it calmed me down but didn't stop the washing.

THERAPIST: Have you tried any other treatments?

JUNE: Only for the anorexia. I went to another counseling center at the university for about a year, but that didn't really help at all.

June's history was unusual only in the relatively recent onset of her symptoms. Typically, patients in our clinic present a much longer duration of symptoms, with the mean around 8 years. Other centers in England and Holland report similar figures. June's treatment history of trying various psychotherapeutic and pharmacological treatments prior to seeking EX/RP was quite typical. Since previous failure with nonbehavioral treatments has not been found to influence outcome with EX/RP, the clinician should not be discouraged by such a history. However, because of a possible skeptical attitude about the value of treatment, the therapist should provide the patient with a clear rationale for EX/RP treatment along the lines discussed earlier and demonstrated below.

THERAPIST: Before I continue to collect more information about your problem, let me tell you about our treatment.

JUNE: Well, Dr. F told me something about it, but I'm still not sure what this treatment is going to be like.

THERAPIST: The treatment is called exposure and ritual prevention. I'll be asking you to confront situations and things that frighten you or make you feel contaminated. We will do this gradually, working up to the hardest things. For example, we may begin with the outside door handles of bathrooms and work our way up to toilet seats and bird doo. We'll do this together, and I'll be there to help you. The sessions will last 1½ or 2 hours, and we'll meet every weekday. In addition, I'll assign you homework to do similar things between the therapy sessions.

JUNE: You mean I have to touch them, even dog dirt?

THERAPIST: Yes, to get over these kinds of fears, people must learn to confront what they're afraid of and stay with it until the discomfort decreases.

JUNE: Even if I did, it would probably take me a year to get used to it.

THERAPIST: Remember, you didn't always feel like this about dog dirt. When you were younger, did you ever step in dog dirt and just wipe it off on the grass and go on playing?

JUNE: Yeah, I forget that. It seems such a long time ago. I used to not think twice about this stuff.

THERAPIST: To get you back to how you used to feel, we need to expose you directly to what you're afraid of. Now, there's a second part to treatment. I'm also going to ask you not to wash for 3 days at a stretch. No handwashing or showering for 3 days. Then you can take a shower, but you will have to limit it to 10 minutes. After the shower, you will have to contaminate yourself again, then wait another 3 days for your next shower.

JUNE: I can't believe it! I'll never be able to do that. If I could, I wouldn't be here. How can I not wash? Every

day I resolve to stop, but I always give in. You mean I wouldn't be able to wash after I use the bathroom or before I eat? Other people wash after they use the toilet. Why can't I just wash less, like normal people do?

THERAPIST: Other people don't have OCD. Remember, for you, washing makes you feel less "contaminated" and less anxious. Right?

JUNE: Yes.

THERAPIST: If you wash, even briefly, whenever you feel "contaminated," you never get a chance to learn that the feeling of contamination would go away by itself without washing. If you are really very anxious, it might take a while, even several hours, before you feel better, but it will eventually happen. On the other hand, if you wash, even briefly, every few hours, it will reinforce your idea that you have to wash to feel better.

JUNE: But why 3 days? Couldn't I shower once a day like other people?

THERAPIST: For the same reason. You'd still feel relief, even if you waited 24 hours between washings. And that would strengthen your belief that you need to "decontaminate" by washing yourself. You must learn to use soap and water to feel clean and fresh but not to "decontaminate" yourself.

JUNE: I think I understand. I know I shower now to get the things I'm afraid of off my body. I used to shower just to get sweat and dirt off, and feel nice. I'm still not sure I could stand it though, not washing for that long.

THERAPIST: The treatment is very demanding. Before we start the treatment program you will need to make a commitment to yourself that even though you will feel very uncomfortable and even quite upset at times, you won't wash. I'll try to help you as much as I can by planning the treatment so you know what to expect each day and by supporting you whenever you need it. Someone will have to be available to help supervise and support you any time you need it. Between sessions, you can always call me here or at home if a problem comes up. I know the treatment won't be easy for you, but I'm sure you can do it if you make up your mind.

At this point, the therapist should not request a firm commitment. Rather, the patient should be made aware of what will be required so that he/she can adjust to these expectations and plan activities during the treatment period accordingly. The patient should make the arrangements necessary to attend daily treatment sessions for 3–4 weeks. As we discussed earlier, two to three sessions per week may be sufficient for patients with less severe symptoms. It is important that the therapist not minimize the difficulty of the treatment regimen, so that the patient is prepared to struggle and enters treatment with a readiness to mobilize inner resources and emotional support from family and friends.

The history of the patient is usually taken in the first session. Because collecting histories of individuals with OCD does not differ from collecting histories of other psychiatric patients, details are not provided here.

Treatment Planning

The therapist began the second session by briefly reviewing the patient's self-monitoring of rituals form. The remainder of the session was devoted to developing a treatment plan.

THERAPIST: OK, now I want to discuss our plan for each day during the first week of therapy. We need to expose you both in imagination and in reality to the things that bother you, which we talked about in our first sessions. As I said already, we'll also limit your washing. The scenes you imagine will focus on the harm that you fear will occur if you do not wash. The actual exposures will focus on confronting the things that contaminate you. Restricting your washing will teach you how to live without rituals. In imaginal exposure, you will picture yourself touching something you're afraid of, like toilet seats, and not washing, and then becoming ill. We can have you imagine going to a doctor who can't figure out what's wrong and can't fix it. That's the sort of fear you have, right?

JUNE: Yes, that and Kenny getting sick, and it being my fault.

THERAPIST: OK, so in some scenes you'll be sick, and in others Kenny will get sick. Should I add that other people blame you for not being careful? Is this what you're afraid of?

JUNE: Yes, especially my mother.

THERAPIST: OK. We'll have her criticize you for not being careful enough. Can you think of anything else we should add to the image?

JUNE: No, that's about it.

THERAPIST: We can compose the scenes in detail after we plan the actual exposures. Let's review the list of things you avoid or are afraid to touch and make sure that we have listed them in the right order. Then we'll decide what to work on each day. OK?

JUNE: OK.

June reviewed the list, which included items such as trash cans, kitchen floor, bathroom floor, public hallway carpet, plant dirt, puddles, car tires, dried dog "dirt," and bird "doo." Changes were made as needed.

THERAPIST: Good. Now let's plan the treatment. On the first day we should start with things that you rated below a 60. That would include touching this carpet, doorknobs that are not inside bathrooms, books on my shelves, light switches, and stair railings. On the second day, we'll do the 60- to 70-level items, like faucets, bare floors, dirty laundry, and the things on Kenny's desk. [The therapist continued to detail Sessions 3–5, increasing the level of difficulty each day.] In the second week, we will repeat the worse situations like gutters, tires, public toilets, bird doo, and dog dirt, and we'll also find a dead animal to walk near and touch the street next to it.

On rare occasions, direct confrontation with a feared object (e.g., pesticides or other chemicals) may have some likelihood of producing actual harm. In such cases, the therapist's judgment should be exercised to find a middle ground between total avoidance and endangerment. With chemicals, for example, patients are exposed to small quantities that are objectively nonharmful. In June's case, the therapist decided that direct contact with a dead animal was not called for, and that stepping on the animal's fur with her shoe and then touching the shoe sole constituted sufficient exposure. In general, the therapist must weigh the level of obsessional distress that will be evoked by a given exposure with the objective risks entailed in completing that exposure. Patients with OCD have difficulty assessing such risks realistically; thus, it is the responsibility of the therapist to evaluate whether exposure is warranted. For example, patients with fears of contracting HIV would certainly be highly distressed if asked to handle a dirty hypodermic needle found in a city gutter, but because exposure to such stimuli is objectively risky, they should not be included on the treatment hierarchy.

THERAPIST: How does this plan sound?

JUNE: The first week is OK, but I'm really scared about the second week. I'm not sure I'll be ready to do the bathrooms and dog dirt by then.

THERAPIST: Many people feel this way at the beginning, but by the end of the first week, you won't be as frightened as you are now about touching tires or public toilets. Remember, I will be here to help you, because it will probably be difficult in the beginning.

JUNE: Yes, I know it. I feel like I don't really have a choice anyhow. This washing is crazy and I'm disgusted with myself. I suppose I'm as ready as I'll ever be.

THERAPIST: Good. Now remember, I'll ask you to keep working on these things for 2–3 hours at home after each session, but you will already have done them with me, so I don't think it will be too hard. I take it that you talked to Kenny about assisting us with supervising, since I saw him out in the waiting room.

JUNE: Yes, he said that's fine. He wanted to know what he should do.

THERAPIST: Let's call him in. Did you talk to your sister-in-law about being available when Kenny is at work during the day?

JUNE: Yes, she was really good about it, but she couldn't come today because of the kids.

THERAPIST: If it's difficult for her to come, I could talk to her on the phone. Why don't you go get Kenny now?

Treatment

June was seen for 15 treatment sessions, held every weekday for 3 weeks. During the fourth week, the therapist visited her twice at her home for 4 hours each time. During these visits, under the therapist's supervision, June contaminated her entire house and exposed herself to objects at home and in her neighborhood that provoked distress. Thereafter, once-weekly follow-up sessions were instituted to ensure maintenance of gains and to address any other issues of concern to her.

As discussed earlier, treatment begins with exposure to moderately difficult items on the hierarchy and progresses to the most disturbing ones by the beginning of the second week. The most distressing items are repeated during the remainder of the second and third weeks. The following sequence, which occurred on the sixth day of treatment, exemplifies this process.

THERAPIST: How was your weekend?

JUNE: Not that great. I suppose it was as good as I could expect. I took my shower Sunday night and I was so nervous about finishing in time I don't even know if I washed right.

THERAPIST: Most people feel the same way. Remember though, you aren't supposed to wash "right," just to wash. Did Kenny time it?

JUNE: Yes, he called out the minutes like you said, "5, 7, 9," and then "stop."

THERAPIST: You stopped when he said to?

JUNE: Yes, but it still wasn't easy.

THERAPIST: I know. I'm really pleased that you were careful to follow the rules.

JUNE: I have pretty much decided that this is my chance to get better, so I'm trying my best.

THERAPIST: Good. I am glad you feel so positive. How was the homework?

JUNE: I touched the floor and the soles of my shoes and the cement. It is all written on the daily sheet there. On Saturday, I went to my sister's, so I could play with the kids like we said. They stepped on me when I lay on the floor and I tried to touch their bottoms when I held them. On Sunday, Kenny and I went to the park. I didn't sit in the grass, but I did walk around and touched my shoes afterward.

THERAPIST: The soles?

JUNE: Yeah. We also went downtown and I threw some things in the trash cans and pushed them down, and tried to touch the sides. It's sort of hard because I felt conspicuous, but I did it anyway.

THERAPIST: That sounds really good. I'm glad to hear it. How about your doormat and going into the garden?

JUNE: I did the doormat and I stood in the garden, but I couldn't touch the dirt. The neighbor's dog always runs all over. I know I should have touched it, but I just couldn't get up the courage.

THERAPIST: Well, you did do many other things. Let's plan to go outside today and do it together, so it will be easier for you to walk in the garden when you go home.

JUNE: OK.

June was very compliant with the treatment regimen. Some patients occasionally lapse on response prevention, particularly during the first week of the treatment program. The therapist should reinforce the patient for partial compliance but emphasize the need to comply fully with treatment instructions. With regard to exposure homework, it is not uncommon for patients to neglect completing some assignments. Again, they should be reinforced for what they have achieved and encouraged to complete all of the assignments.

THERAPIST: How are you and Kenny doing?

JUNE: He got mad on Sunday night after the shower, because I started to ask him how he showered and if I was clean enough. I think I nagged him too much, so he lost his temper. We just watched TV, and after a while we talked a bit and he sort of apologized for getting mad. But I understand; I ask too many questions. Otherwise, the rest of the weekend was OK.

THERAPIST: Well, it's unfortunate that Kenny got mad, but it's good that he didn't answer your questions. He's not supposed to reassure you about cleanliness.

JUNE: I think he has a hard time knowing when to answer me and when not to. I am not real sure either. Could you talk to him before Wednesday, when I shower again?

THERAPIST: That's a good idea. I'll call him after we're done with today's session. Now, today we'll start with the scene about you driving your car to an appointment with me, and you get a flat tire and have to change it. The cars splash water in the puddle near you, and it lands on the car and on you. Then you notice a dead animal when you walk behind the car, and it's right behind you. You really feel contaminated. You walk to the gas station nearby to see if they can fix the tire and you have to urinate so badly that you have to use their restroom. They agree to fix the tire if you remove it and bring it to them, because, otherwise, they are too busy. Of course, that means you will have to handle the tire that is contaminated by the dead animal. We'll add some bird doo on the street and on the sidewalk, too. Then, later you start to feel sick, and you feel like it's from the dead animal. Sound awful enough?

JUNE: Yeah. Ugh. That one is really bad. Do I have to? Never mind, I know the answer.

THERAPIST: OK. I want you to close your eyes now and imagine that you are driving your car on West Avenue.

Note that the therapist checked the patient's assignment from the previous day to verify that she completed it and did not engage in avoidance and rituals. This provided an opportunity to reinforce efforts at self-exposure. It is important to keep track of completion of homework, because patients do not always volunteer information about omissions. They will, however, admit failure to comply if directly asked and are likely to carry out the next assignment if reinforced adequately.

With regard to the conflict between June and Kenny, it is our experience that, like Kenny, most family members are quite willing to help. Difficulty may, however, arise when they are unable to help without becoming upset, thereby increasing the patient's tension. Providing them with an opportunity to ventilate their frustration by contacting the therapist, who also may coach them in alternative reactions, may reduce familial tension.

That same session also included imaginal exposure to do a scenario planned in advance. Since that scenario had already been discussed in detail with the patient, it posed no surprises for her. It is presented for up to 1 hour, or until a substantial decrease in anxiety is evident. Next, the patient is confronted *in vivo* with situations like those included in the fantasized scene.

THERAPIST: It's time to do the real thing now. I looked for a dead animal by the side of the road yesterday and I found one about a mile away. I think we should go there.

JUNE: Yuck, that's terrific. Just for me you had to find it.

THERAPIST: Today's our lucky day. You knew we were going to have to find one today anyhow. At least it's close.

JUNE: Great.

Humor is encouraged and can be quite helpful if the patient is capable of responding to it. At the same time, it is important that the therapist laugh *with* rather than *at* the patient. Patients and therapists often develop a shorthand lexicon for discussing OCD and its treatment that is specific to them and aimed at promoting compliance with treatment. For example, one patient–therapist pair began to discuss exposure homework as "swallowing the frog," based on a proverb that the patient introduced. When the therapist asked the patient if she had "swallowed the frog" that morning, it conveyed the difficulty of the exposure tasks she needed to do between sessions. It is important for the therapist to observe the patient's interpersonal style to determine whether such banter is likely to promote the therapeutic goals.

THERAPIST: (*outside the office*) There it is, behind the car. Let's go and touch the curb and street next to it. I don't think that you need to touch it directly, because it's a bit smelly, but I want you to step next to it, then touch the sole of your shoe.

JUNE: Yuck! It's really dead. It's gross!

THERAPIST: Yeah, it is a bit gross, but it's also just a dead cat if you think about it plainly. What harm can it cause?

JUNE: I don't know. Suppose I get germs on my hand?

THERAPIST: What sort of germs?

JUNE: Dead cat germs.

THERAPIST: What kind are they?

JUNE: I don't know. Just germs.

THERAPIST: Like the bathroom germs that we've already handled?

JUNE: Sort of. People don't go around touching dead cats.

THERAPIST: They also don't go running home to shower or alcohol the inside of their car. It's time to get over this. Now, come on over and I'll do it first. (*June follows.*) OK. Touch the curb and the street. Here's a stone you can carry with you and a piece of paper from under its tail. Go ahead, take it.

JUNE: (*looking quite uncomfortable*) Ugh!

THERAPIST: We'll both hold them. Now, touch it to your front and your skirt, and your face and hair. Like this. That's good. What's your anxiety level?

JUNE: Ugh! 99. I'd say 100, but it's just short of panic. If you weren't here, it'd be 100.

THERAPIST: You know from past experience that this will be much easier in a while. Just stay with it and we'll wait here. You're doing fine.

JUNE: (*A few minutes pass in which she looks very upset.*) Would you do this if it weren't for me?

THERAPIST: Yes, if this were my car and I dropped my keys here, I'd just pick them up and go on.

JUNE: You wouldn't have to wash them?

THERAPIST: No. Dead animals aren't delightful, but they're part of the world we live in. What are the odds that we'll get ill from this?

JUNE: Very small, I guess. I feel a little bit better than at first. It's about 90 now.

THERAPIST: Good! Just stay with it now.

The session continued for another 45 minutes, or until anxiety decreased substantially. During this period, conversation focused generally on the feared situations and the patient's reaction to them. The therapist inquired about June's anxiety level approximately every 10 minutes. It is important to note that June and the therapist have engaged in conversation throughout the exposure task, discussing issues such as habituation, risk, responsibility, and long-term outcomes. At the same time, it is imperative to refocus the patient on the exposure task at hand to ensure that he/she remains engaged with it. Thus, asking for SUDS ratings serves two purposes: It provides data about fear reduction, and it refocuses the patient on the exposure. However, if the informal discussion serves as a distractor, helping the patient "not think about" what he/she is doing, the therapist should limit such conversations.

THERAPIST: How do you feel now?

JUNE: Well, it is easier, but I sure don't feel great.

THERAPIST: Can you put a number on it?

JUNE: About 55 or 60, I'd say.

THERAPIST: You worked hard today. You must be tired. Let's stop now. I want you to take this stick and pebble with you so that you continue to be contaminated. You can keep them in your pocket and touch them frequently during the day. I want you to contaminate your office at work and your apartment with them. Touch them to everything around, including everything in the kitchen, chairs, your bed, and the clothes in your dresser. Oh, also, I'd like you to drive your car past this spot on your way to and from work. Can you do that?

JUNE: I suppose so. The trouble is going home with all of this dirt.

THERAPIST: Why don't you call Kenny and plan to get home after he does, so he can be around to help you. Remember, you can always call me if you have trouble.

JUNE: Yeah. That's a good idea. I'll just leave work after he does. See you tomorrow.

This scenario illustrates the process of *in vivo* exposure. The therapist answered clearly the questions raised without detouring from the essential purpose of the session, exposure to the feared contaminant. After the initial increase, the anxiety may begin to drop relatively quickly for some patients and may require longer for others. As noted previously, it is advisable to continue the exposure until the patient appears visibly more at ease and reports a substantial decrease in anxiety (40 or 50%).

After 10–15 sessions, the patient's reported anxiety level is expected to decrease considerably. At the 15th session, June reported a maximum discomfort of 70 SUDs (still somewhat high, although reduced from 99 SUDs) that lasted for a few minutes. Her minimal anxiety was 35 SUDs. Her average anxiety level during this session was 45 SUDs. Ideally, by the end of treatment, the highest level should not exceed 50 SUDs and should drop below 20 SUDs at the end of the session. In June's case, more follow-up sessions were required, because her anxiety was still quite high.

To facilitate a transition to normal washing and cleaning behavior, the therapist instituted a normal washing regimen during the third week of treatment. The patient was allowed one 10-minute shower daily and no more than five 30-second handwashes when there was visible dirt on her hands or when they were sticky.

When the therapist arrived for a home treatment session the next week, the following conversation ensued:

THERAPIST: How did it go over the weekend?

JUNE: Not too bad. But I got sort of upset Saturday. We went to a picnic and there were several piles of dog dirt around. I had on my flip-flops and I wanted to play volleyball. You can't in flip-flops, so I went barefoot.

THERAPIST: That's great! I'm glad to hear it.

JUNE: Yeah, but then I got really upset about going home and carrying it into the apartment. I did it. I walked all over barefoot and with the flip-flops, but I worried about it for another whole day, until I talked to Kenny about my thoughts on Sunday around noon. I felt better when he said he wouldn't worry about it. It seems like I feel guilty or something, like

the house isn't clean enough. But lately if he says it is clean, I've been able to take his word for it.

THERAPIST: Well, in time you'll be able to make this kind of judgment yourself. How about your washing and cleaning?

JUNE: It was all right. I washed for half a minute before I ate, because I was dusty from playing volleyball. I deliberately didn't wash when I got home, because I felt bad and I knew that if I did, it would be to "decontaminate" myself. I showered Saturday night and I did feel relieved, but I knew I should go and walk around barefoot and touch the floors I'd walked on. So I did that.

THERAPIST: That's great! It sounds like you handled it fine. I'm really pleased. You avoided washing when it would mean reducing feelings of contamination, and you exposed yourself when you felt concerned about germs. That's excellent. Now, let's go over the problem situations that still need work here at home. What things still disturb you?

JUNE: The basement. I haven't done much with the kitty litter box and old shoes that I threw down there a year ago, because they got contaminated. The closet still has some contaminated clothes. And I still worry about the backyard some. Also, the porch. Pigeons have been perching on the roof, and there are droppings on the railing now, so I thought I'd wait until you came to do that.

THERAPIST: OK. Let's start low and work up. Which is easiest?

JUNE: The basement and closets.

THERAPIST: Fine, down we go.

Exposure to contaminants during the home visit is conducted in the same manner as that during treatment sessions. Typically, home sessions last longer, from 2 to 4 hours, until all "dirty" items are touched and "clean" places are contaminated. These visits should be repeated if the patient expresses considerable concern about his/her ability to adopt a permanent regimen of nonavoidance.

Follow-Up Sessions

June was seen weekly for 3 months, until she experienced a setback following the development of a new obsession. She became concerned about hitting a pedestrian while driving. Thoughts that she "might have hit someone" intruded, particularly after turning a corner or glancing in the mirror to change lanes. Once evoked, they persisted for several hours. To overcome this new problem, the therapist directed June to increase her driving and refrain from retracing her path or looking in the mirror to check for casualties. June was told that she could stop her car only if she knew for certain that she hit someone. Thoughts that it "might" have occurred were to be ignored. To reduce June's anxiety about having obsessions (e.g., "Oh, my God, here it is again. This is terrible"), she was advised to expect occasional recurrences of obsessive thoughts. The frequency of obsessions about hitting someone decreased from several each day to once weekly after 3 weeks of self-exposure; the associated anxiety diminished from 95 to 50 SUDs or less.

Of June's germ-related obsessions, only that of dog feces partially recurred. Fears of public bathrooms and dead animals remained low. The therapist felt that June's fear of dog feces had received insufficient attention during treatment. To address this return of fear, June was seen three times a week for 1-hour exposure sessions, in which she touched brown spots on the sidewalk and walked near, and eventually stepped on, dog feces. Homework included going to parks, walking on sidewalks without looking, stepping on dog feces, and stepping on the grass where she thought dogs had been. This treatment continued for 4 weeks and was reduced to twice a week for an additional 3 weeks. Thereafter, June came once weekly for another 6 weeks, during which the therapist assigned self-exposure and dealt with June's everyday concerns. News media coverage of herpes led to a brief concern about public toilets, but this dissipated within a few days.

In the dialogue below, the therapist reviewed with June her progress at a 9-month follow-up.

THERAPIST: I'd like to know how you feel compared to when you first came here 9 months ago.

JUNE: I'm definitely a lot better. But I still have some bad days when I worry a lot about something, and I get down on myself. But when I remember how upset I was last summer and all that washing I did, it's really a whole lot better. Maybe about 80% better. I'm not ready to be a floor nurse yet, but the job I got after treatment is pretty good for now. Kenny and I are doing fine, except he's real sensitive if I bring up one of my fears. I wish he'd just listen and say, "OK"

or something, instead of looking worried about me. It's like he's afraid I'm going to get upset again. It makes it hard for me to talk freely, but sometimes he does handle it fine. I really can't complain. He's been through a lot, too, when I was really a mess last year and before that.

THERAPIST: I'm glad to hear you feel so much better. You look a lot more at ease. You laugh more now. I don't know if you recall, but you never did in the beginning.

JUNE: I remember.

THERAPIST: What's left now, the other 20%?

JUNE: Obsessions, I guess. I can still work on my fear of driving over someone. Mostly it lasts less than 15 minutes, but now and then it hangs on through an evening.

THERAPIST: How often?

JUNE: Once every week or two, I think. And I still have an urge to avoid walking on the grass in parks. Like I'm hyperalert. I do it pretty often, but I'm self-conscious.

THERAPIST: You mean you have to remind yourself not to avoid dog feces?

JUNE: Yeah. And I tend to see things in black and white, all good or all bad. I catch myself feeling guilty for dumb things like eating dessert after a full meal. I can stop, but it's like I'm out to punish myself or think badly about what I did. I have to watch out for it. Still, the thoughts are nothing like they used to be. I can have fun now. And work is pretty absorbing, so I can go whole days without getting down on myself for something. Will I always do that?

THERAPIST: Maybe to some extent. We know that you have a tendency to obsess. Most people who have had an obsessive–compulsive problem say that the rituals and urges to do them decrease more quickly than the obsessive ideas. You might have disturbing thoughts for a while, but you can expect them to become less frequent if you're careful not to attempt to control them through rituals or by avoiding things. Can you handle that?

JUNE: I suppose so. They're not a lot of fun, but I feel like I'm living a normal life again. I suppose everyone has some problems to deal with.

Rarely do patients report complete remission of all obsessions. It is unrealistic to lead a patient to expect that 4 weeks of treatment will result in a total absence of obsessions and rituals. Patients should expect some continued struggle with obsessions and urges to ritualize. Strategies for coping with such occasional difficulties should be rehearsed.

COMPLICATIONS DURING BEHAVIORAL TREATMENT

Obviously, difficulties may arise during implementation of EX/RP treatment for OCD. Several of these are described below and possible solutions are discussed.

Noncompliance with Response Prevention

Individuals with OCD often report engaging in rituals despite the response prevention instructions. In most cases, these represent brief "slips" that the therapist addresses by reiterating the rationale for the treatment regimen and the need to follow the response prevention instructions strictly. The therapist also may offer ways the ritual might be "undone" (e.g., recontaminating or turning the stove on and off again).

Sometimes the patient's support person reports violations of response prevention to the therapist. The therapist should discuss the violations with the patient, emphasizing the fact that continued failure to comply with the response prevention instructions may result in treatment failure. The following is an example of how violations of response prevention may be presented to the patient.

> "I understand from your father that on three occasions this weekend he saw you checking the front door lock five or six times before you left the house. As we agreed in the first session, he called to inform me about your checking. I am sure you remember that we agreed that you would check the doors only once, and that if you had a problem, you would discuss it with your father or me right away, so we could help you overcome your urge to ritualize. Will you explain to me what happened?"

If the patient acknowledges the slip and responds with a renewed agreement to follow instructions, the therapist need not pursue the issue further. However, if a second significant infraction of the response prevention instructions occurs, the therapist should again remind the patient of the therapy rules and the rationale

for these rules, and "troubleshoot" with the patient how to implement ritual prevention successfully. During the course of this discussion, if it becomes evident that the patient is unwilling to consider these recommendations and remains committed to rituals and avoidance as a means to reduce obsessional distress, then the therapist may broach the subject of discontinuing treatment, unless the patient is ready to comply.

> "It seems that right now you aren't able to stop ritualizing. For treatment to be successful, it is essential that you *completely* stop your rituals. Every time that you relieve your discomfort by ritualizing, you prevent yourself from learning that anxiety would have declined eventually without rituals, and you don't permit your obsessional fears to be disconnected from distress and anxiety. Exposing you to feared situations without stopping your rituals won't be helpful. If you cannot follow the no-rituals rule quite strictly, then we ought to stop treatment now and wait until you are really prepared to follow through with all the requirements. It is very hard for people to resist the urge to ritualize, and it may be that you are just not ready yet and will feel more able to do so in the future. It is much better for us to stop treatment now than to continue under conditions where you are unlikely to benefit from treatment. That would only leave you feeling more hopeless about future prospects for improvement."

As discussed earlier, patients sometimes replace identified rituals with less obvious avoidance patterns. For example, a patient may use hand lotion to "decontaminate" the hands instead of the excessive washing that was done originally. If this occurs, the therapist should immediately instruct the patient to stop the new ritual. Other examples of replacement washing rituals include brushing off one's hands or blowing off "germs"; extensive checks are often replaced with quick glances. Direct questioning of the patient to solicit such information should proceed as follows:

> "Now that you've stopped your washing rituals, do you find yourself doing other things to relieve your anxiety? For example, some people start to wipe their hands with paper towels or tissues as a substitute for washing with soap and water. Are you doing anything like this?"

If the answer is "yes," the therapist should identify these new behaviors as rituals and instruct the patient to resist engaging in them in the same manner as he/she resists other compulsions.

Continued Passive Avoidance

Patients who continue to avoid situations likely to evoke obsessional distress are also likely to experience attentuated outcome in EX/RP. For example, a patient may put "contaminated" clothing back in the closet as instructed, but in doing so he/she may ensure that the contaminated clothes do not touch clean garments. Such avoidance reflects an ambivalent attitude toward treatment and hinders habituation of anxiety to feared situations. Because such processes may hinder outcome, the presence of continued and frequent avoidance behavior calls for the therapist and patient to reevaluate whether the patient should continue treatment.

THERAPIST: Jim, let's make sure that you are doing your homework the right way. I know that you had a problem putting your dirty underwear in with your other dirty clothes. How are you doing with it now?

PATIENT: Well, I was afraid you might ask that. I still haven't mixed them up. I was too scared to do it.

THERAPIST: We discussed this several days ago and you were instructed to do it that night. It would have been better had you told me the next day that you weren't able to. What I'd like you to do for tomorrow is to bring in some dirty clothes. Bring in the underwear and the other clothes in separate bags, and we will mix them here in the office. Are there any other things you have been avoiding that you haven't told me about?

PATIENT: I don't think so.

THERAPIST: I want you to pay careful attention to things you are doing, or not doing, and make a list of anything you are avoiding, particularly things that you are supposed to do for therapy. It is very important that you don't protect yourself by avoiding distressing situations, since if you don't face these situations, your obsessive–compulsive symptoms won't get better. Let's give it another try, but if you can't bring yourself to confront these problematic situations without these little avoidances, perhaps you would be better off delaying your treatment to a later time when you will be more ready to comply with the treatment program.

Arguments

Some individuals who carry out the required exposure without ritualizing may attempt to engage the therapist in arguments about the assignments. It is quite tempting to get involved in arguments with patients over what they will or will not do during treatment. To avoid this, it is important for the therapist and the patient to agree on some ground rules before the intensive program begins. Patients must agree to follow the treatment plan that they developed in conjunction with the therapist, and to expose themselves to the distressing situations without argument. New, feared situations that are discovered should be discussed, and a new exposure program should be developed and agreed to, before exposures to the new situations are carried out. If a patient balks at or attempts to alter a planned exposure, the therapist should acknowledge and empathize with the patient's discomfort, inquire about the reasons for the hesitation, and encourage the patient to proceed in the following manner:

> "I'm sorry to see that you are having so much trouble sitting on the floor. I know it's difficult and that you're frightened, but it won't do you any good if we delay the exposure for another day or let you skip it all together. You really need to touch the floor, so let's go ahead and do it now. We have agreed that today is the 'floor' day, and I wouldn't be doing you a favor if I allowed you to avoid it. Remember, though, I am here to support you as much as I can when you become upset."

In some instances, difficulties may be overcome by first exposing the patient to similar items that generate a lower level of distress. For example, if a patient refuses to touch a toilet seat, then the therapist may ask him/her first to touch the bathroom floor or the door to the bathroom stall. Thereafter, the patient might touch the walls of the stall and the toilet handle before proceeding to the toilet seat itself.

Emotional Overload

Occasionally, during treatment, a patient will become overwhelmed by fear or another emotion that is not directly related to his/her OCD symptoms. For example, a patient may be upset by a recent event (e.g., the death of a relative) or by fears of facing future plans (e.g., living on one's own or getting a job). Implementing exposure exercises is inadvisable when the patient is extremely upset, because it is unlikely that the patient will adequately attend to the exposure stimulus; therefore, anxiety is unlikely to habituate. Instead, the therapist should discuss the distressing situation with the patient and proceed with exposure only when the patient is calmer. On rare occasions, exposure may be postponed altogether until the next day's session. If this becomes a repetitive pattern, it may be advisable to interrupt treatment until the crisis is over.

Nonanxious Reactions to Exposures

Occasionally, patients respond to exposures with emotions other than anxiety or distress, such as anger or depression. Clinical observations suggest that anger often serves as a means for the patient to avoid the distress or anxiety that is the target of exposure. If this happens, the anger should be viewed as an avoidance. The therapist should refocus the patient on the anxiety-evoking aspects of the situation and point out to the patient that the anger only stands in the way of progress.

Sometimes, during imaginal exposure, when a patient is exposed to the feared consequences of his/her behaviors, the patient becomes depressed. Such depression and other emotional reactions may reduce the efficacy of treatment, and the therapist needs to help the patient to focus on the anxiety-evoking cues. This may be done by directing the content of the imaginal exposure away from the feared consequences and toward the external threat cues. In some cases, such redirection does not resolve the problem, and the patient continues to display a depressive reaction to the exposure. When this happens, alternative scenarios that do not elicit depression should be developed.

Emergent Fears and Rituals

As mentioned earlier, sometimes patients develop "new" fears or rituals during treatment. Often, the content of these new symptoms is closely related to the original fears and may be treated by extending to these fears the EX/RP instructions given earlier in treatment. For example, following the successful implementation of response prevention for his compulsive handwashing, Mr. F began to rub his hands together to decontaminate them. The therapist identified this as another ritual and instructed Mr. F to resist the urge to rub his hands together. Next, Mr. F began subtly to rub his fingers against the palms of his hands to cleanse his hands

and to reduce anxiety. The therapist asked Mr. F to stop this ritual as he had the others and was again successful.

Some emergent fears may not be as clearly connected to the patient's original fears. For example, the fear that June developed of hitting someone while driving was not obviously related to her fears of contamination. Further assessment often results in the discovery of a conceptual link between the two reported fears. In June's case, her fear of being blamed for causing someone to become ill or die, and her concern about being thought of as a "bad person" because she killed someone, or because she smelled of dog feces, may have been the connection between her two identified fears. In such cases, it is important for the therapist to develop exposures that include cues for this more general fear. June's therapist might conduct imaginal exposures that include images of people criticizing June or blaming her for causing someone to die.

Negative Family Reactions

Because family members have typically experienced years of frustration with the patient's symptoms, it is not surprising that some are impatient, expecting treatment to progress smoothly and to result in total symptom remission. It is not uncommon for family members to become disappointed or angry when they perceive that the symptoms are not subsiding quickly enough. In such cases, the therapist should assure family members that occasional strong anxiety reactions are to be expected and do not reflect failure. The family should be encouraged to respond calmly and be supportive should the patient experience a burst of anxiety.

Often, families have developed patterns of behavior designed to reduce the patient's distress. Some family members may continue these patterns either in an attempt to protect the patient from upsetting situations or because it is difficult to break habits established over years of accommodating the patient's requests. For example, Mr. P, who was accustomed to entering his home through the basement, immediately removing his clothes, and showering for his wife's sake, was instructed to enter through the front door and toss his overcoat on the couch. Similarly, family members may find themselves continuing to perform a variety of household activities that they have come to regard as their responsibility because of the patient's wishes to avoid the distress that the activity caused. For instance, Mr. P was responsible for preparing all the family meals, because his wife was distressed by the possibility that she might inadvertently contaminate the food. Because such familiar patterns may hinder progress in treatment, the therapist should ask both the patient and family members about such habits and prescribe appropriate alternative behaviors that maximize the patient's exposure and minimize avoidance.

Functioning without Symptoms

At the end of treatment, many individuals with OCD find themselves left with a considerable void in their daily routines. The fact that they no longer need to allocate a large portion of their day to performing rituals leaves them wondering what to do. The therapist should be sensitive to these issues and aid in planning new social or occupational goals to be achieved following therapy. If needed, the therapist should conduct additional sessions or refer the patient to another therapist, who will focus on adjustment-related issues. It may also be the case that behavioral treatments such as acceptance and commitment therapy (ACT) are directly applicable to this problem given the explicit focus on functioning; patients with OCD might be especially vulnerable to the belief that they cannot move forward successfully in their lives unless their obsessions are gone, and ACT is particularly well suited to address these kinds of problems. Preliminary evidence from a case series suggested the applicability of ACT to OCD (Twohig, Hayes, & Masuda, 2006), and an RCT provided stronger evidence for the efficacy of ACT (Twhohig et al., 2010).

Because they have spent years performing their rituals, patients may be unsure about what constitutes normal behavior. The therapist should offer guidelines for appropriate washing, checking, repeating, or ordering. If rituals are still present, the therapist needs to instruct patients to continue the response prevention of some behaviors to ensure maintenance of treatment gains. A patient may also develop a fear that the OCD symptoms will return. The therapist should reassure the patient that a single washing of his/her hands does not signal the beginning of a relapse.

CONCLUSION

In this chapter, we have reviewed the literature on OCD and its treatment, and provided verbatim dialogue from patient–therapist interactions to demonstrate how EX/RP is implemented. Our review illustrates clearly that much is already known about CBT and pharmaco-

therapy for OCD. In our clinical practice with adults, we are guided by the empirical research summarized in this chapter, although not all of our clinical decisions are unequivocally supported by empirical studies. For example, no controlled, direct comparison study has indicated that intensive EX/RP yields superior outcome to less intensive treatment, yet we typically provide intensive treatment to our adult patients with at least moderately severe OCD. Although our clinical experience suggests that weekly sessions are probably insufficient to produce meaningful gains in most adult patients with OCD, it has yet to be established whether two or three weekly sessions would yield results comparable to daily sessions both immediately after treatment and at follow-up. Future research should examine this important issue to establish a "dose–response" curve for EX/RP; in our view clinically, the patient's initial severity, comorbidity, and motivational readiness to engage in the treatment influence our recommendations regarding the EX/RP visit schedule. Another important issue is how to best combine EX/RP with medication. Future research will allow us to identify the optimal treatment course for a particular patient.

Empirical results and clinical observations converge to indicate that psychosocial treatment for OCD must involve both EX and RP instructions, and that failure to conduct exposures to the most anxiety-evoking situations is likely to compromise outcome. With respect to the therapist-assisted versus self-exposure issue, we routinely choose therapist-assisted exposure in our clinical practice. At present, eliminating therapist assistance with exposure exercises seems premature, because existing studies have methodological problems such as insufficient sample sizes, and an RCT in pediatric OCD indicated that EX/RP with in-session exposure was superior to a brief form of EX/RP that did not include this procedural element (Franklin et al., 2011). With respect to the role of cognitive interventions in the treatment of OCD, the EX/RP program described in this chapter is a "cognitive-behavioral" treatment in that it targets both cognitions and behaviors; however, we do not typically include formal cognitive restructuring. Future research needs to delineate which cognitive and behavioral procedures are most effective for correcting particular pathological emotions. Cognitive procedures may also be utilized in "readiness programs" designed to help patients who are highly ambivalent about EX/RP realize that the treatment is both tolerable and effective. Empirical research to date suggests that although antidepressant medications for OCD do not interfere with the efficacy of CBT, combination treatment is not necessarily more effective than EX/RP alone. However, the partial symptom reduction typically found in pharmacotherapy studies for OCD may render some patients more willing to tolerate the distress associated with EX/RP; thus, premedication may be helpful in promoting readiness in such cases.

What factors seem to enhance long-term efficacy of EX/RP for OCD? Studies suggest that patients with OCD who show great improvement immediately after CBT are more likely to retain their gains at follow-up than those who make only moderate posttreatment gains (e.g., Simpson et al., 2004). Thus, emphasis on procedures that are likely to lead to maximal short-term efficacy also serves to yield superior maintenance of gains. In our clinical experience, understanding of the treatment rationale, active engagement in exposure exercises, strict adherence to ritual prevention instructions, willingness to design and implement exposure exercises between sessions, and willingness to confront even the most difficult tasks on the fear hierarchy are all factors associated with positive treatment outcome. Thus, verbal reinforcement of patients when they accomplish these goals, and reinstruction when they do not, are important in promoting lasting improvement. In addition, relapse prevention techniques designed specifically for OCD have been found effective in promoting maintenance of gains at follow-up (Hiss et al., 1994). In clinical practice, we begin discussing relapse prevention procedures long before treatment is completed, and we focus on maintaining gains in the last few active treatment sessions. Some continuing contact with the treating clinician is also thought to be of benefit; thus, brief follow-up sessions are held in the first few months after the active treatment is completed, with contact as needed following the formal follow-up phase. As part of relapse prevention, we often ask our patients to plan EX/RP exercises for hypothetical obsessions they might encounter in the future (e.g., "If you became obsessed in 6 months that touching tree bark would result in your contracting a terrible illness, what exercises should you do?") to encourage them to problem-solve around OCD issues for themselves rather than relying on the therapist's instruction. We also emphasize that the occasional occurrence of obsessions should not be a cause of great alarm, provided that patients implement EX/RP to combat these recurring obsessions and urges to ritualize. The patients who are accepting of this reality are often the ones most able to apply what they have learned in treatment, and this process enables them to keep their OCD symptoms under control long after treatment has terminated.

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